


90646

MAKE TWO
AND SEND

TO

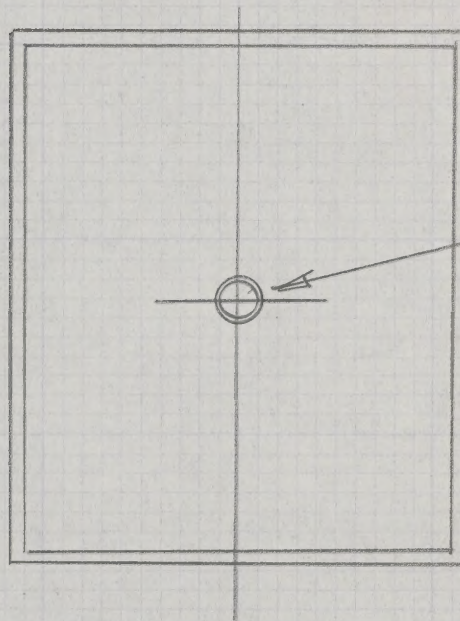
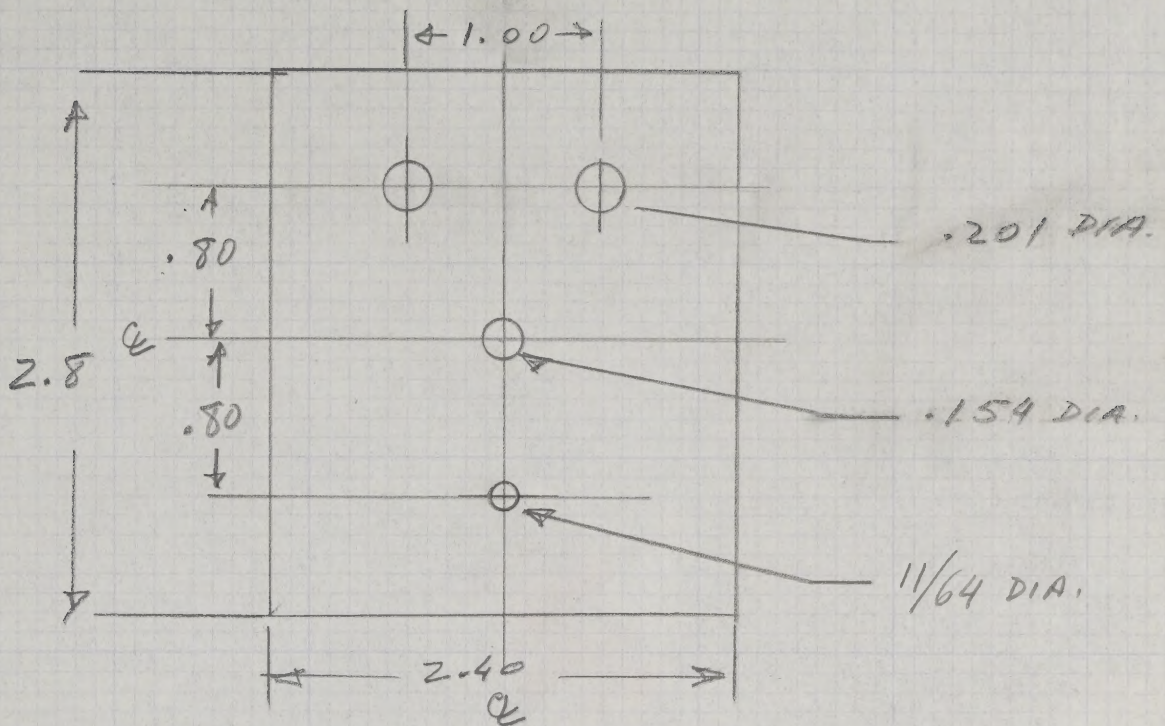
ROGER

BOSWELL



Digitized by the Internet Archive
in 2023 with funding from
Amateur Radio Digital Communications, Grant 151

<https://archive.org/details/101853windcontro00unse>



INSIDE VIEW

MODIFICATION OF CASE
POS-2400280052

TOP DWG.: 101853

5/12/88

Top Dwg: 101823

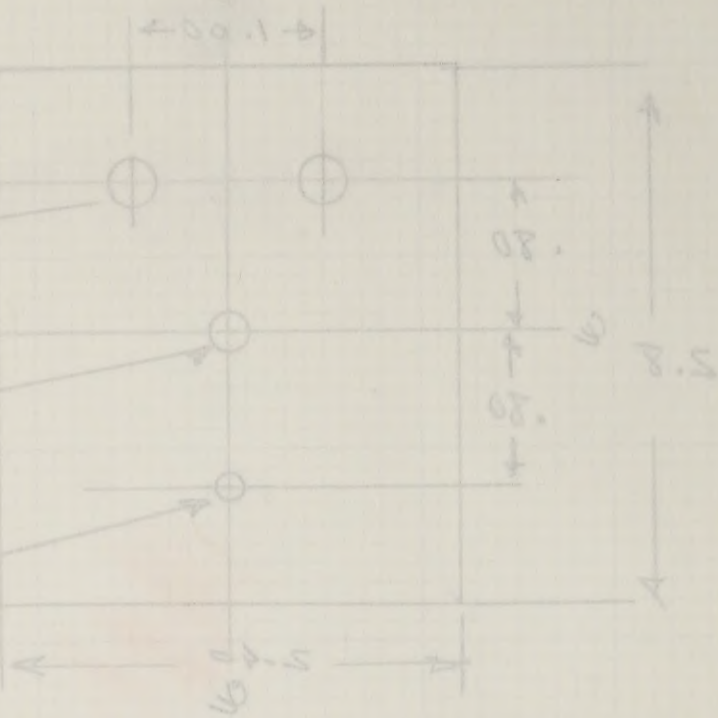
902-240020025

MODIFICATION OF GATE

INSIDE VIEW



MOUNT INSERT
WITH GROUT
OR CEMENT



1.50 DIA.

1.52 DIA.

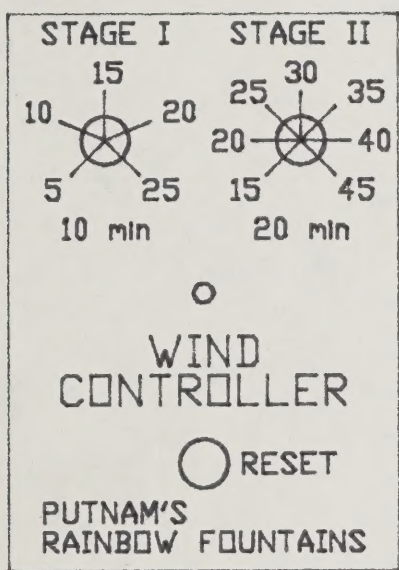
1/4 DIA.

Don't

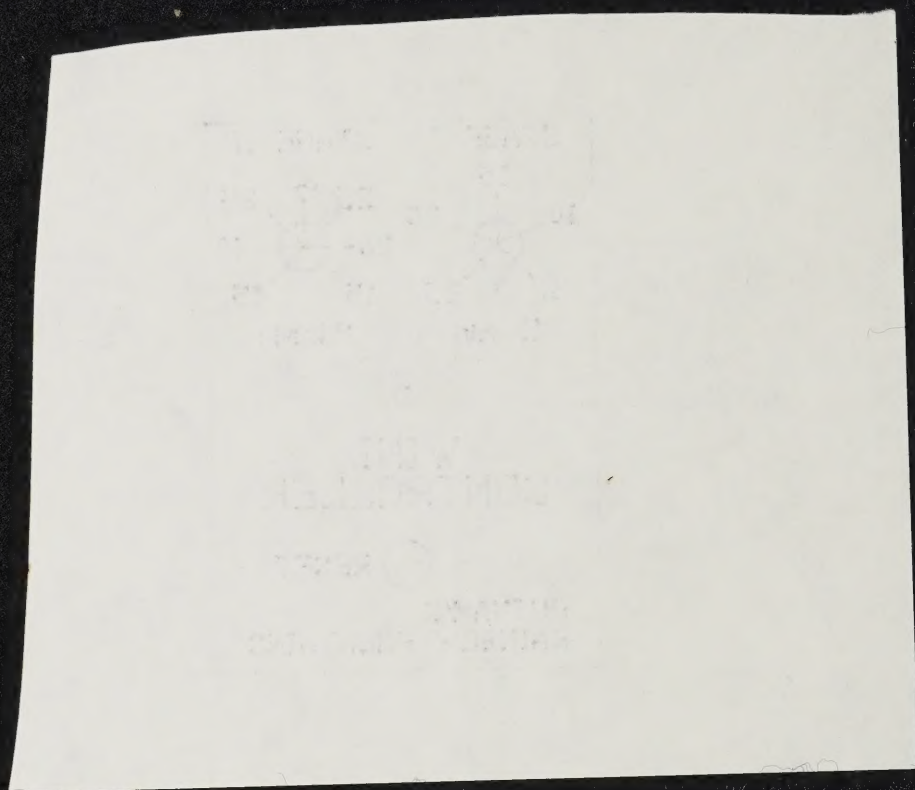
Loose

or

copy



90646



ADJUSTMENT RANGES

STAGE ~~01~~

MPIT

5-25 MIN.

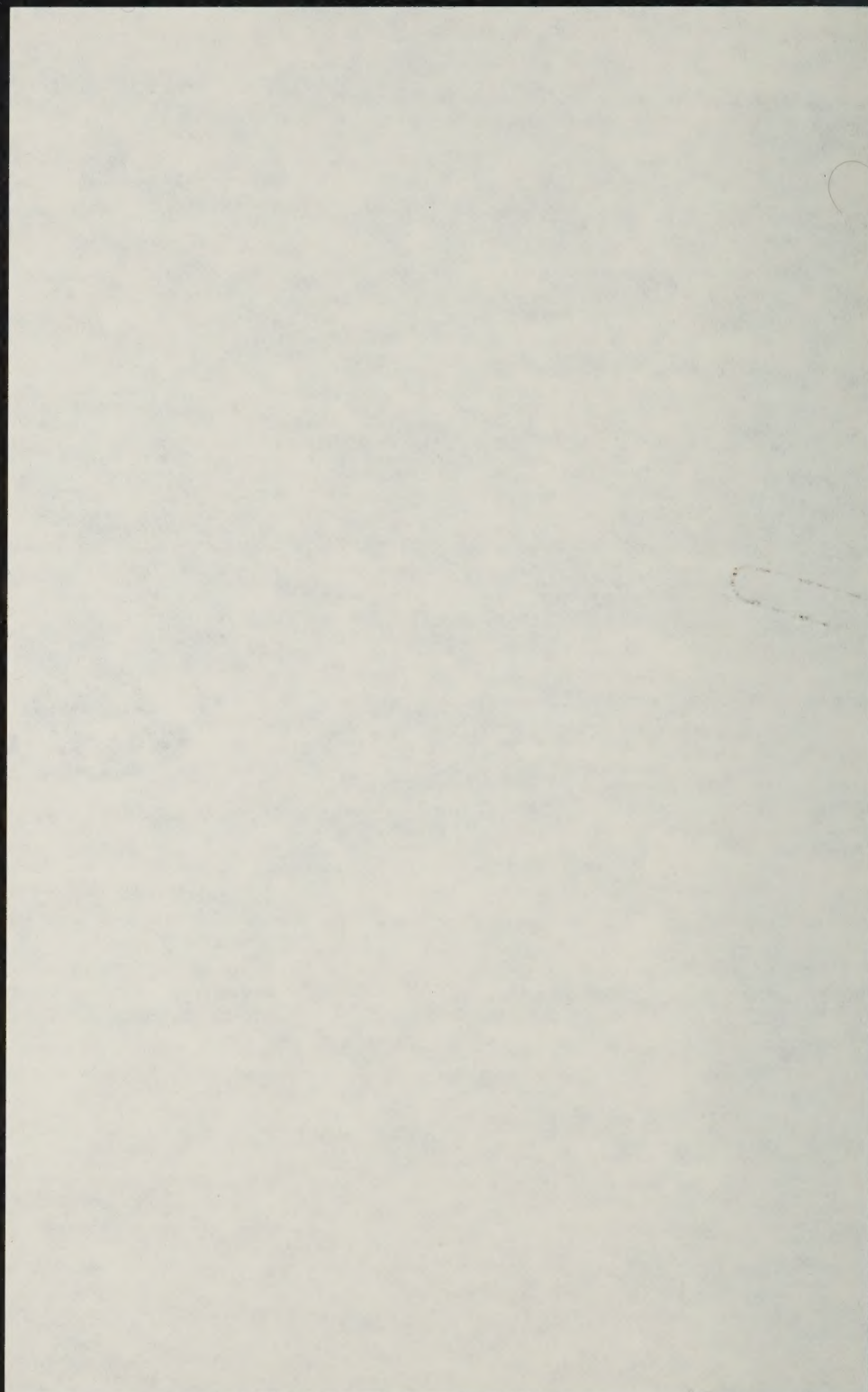
(10 MIN
10-15)

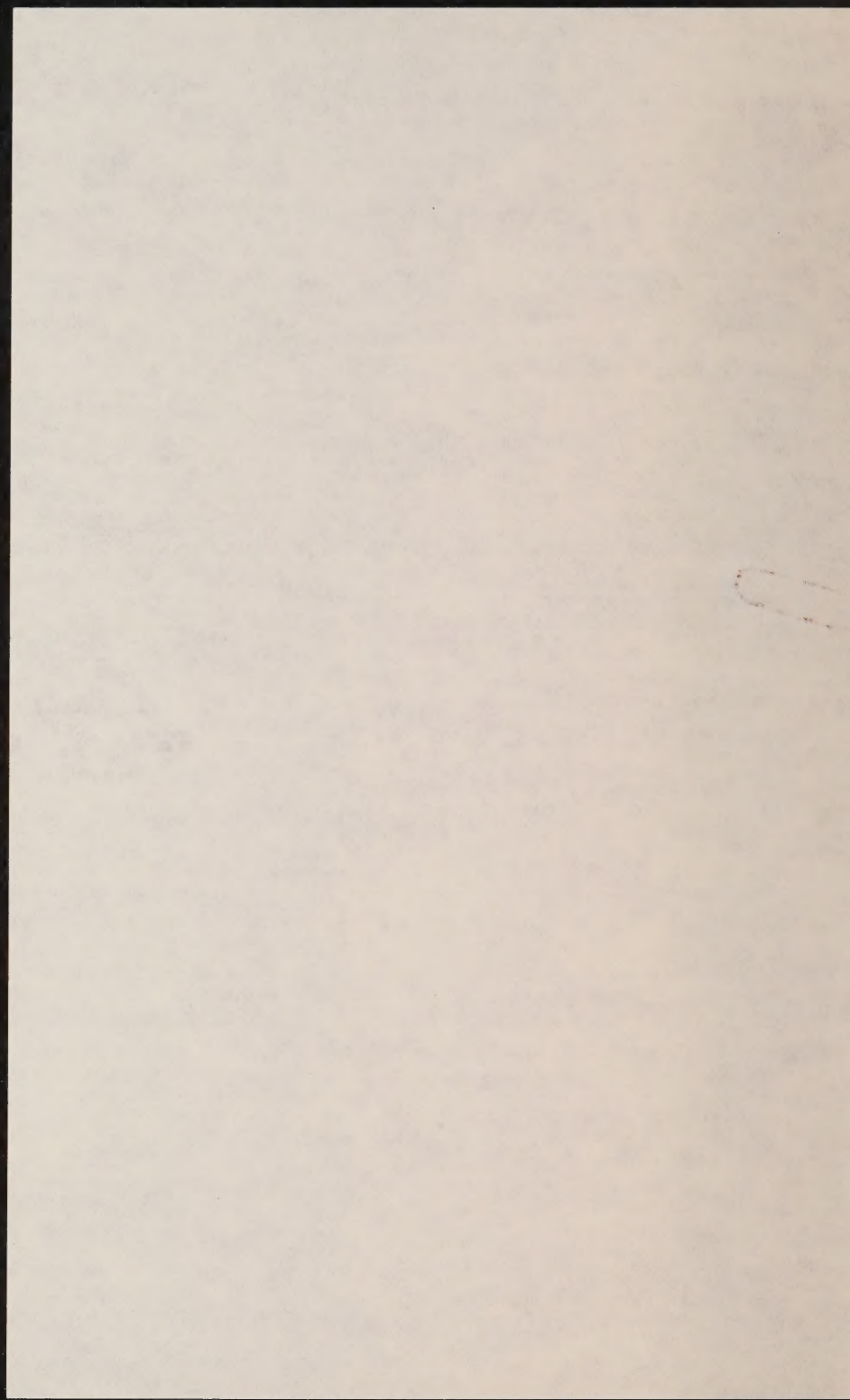
STAGE II

MPIT


~~15~~ - 45 MIN.

(20 MIN
15-25)







DIMENSIONS ARE IN INCHES AND AFTER PLATING	DR	5/16"	 Parko ELECTRONICS COMPANY INC., SANTA ANA, CALIF.
	CHK		
TOLERANCES (unless otherwise specified)	DSGN		WIRING DIAGRAM - WIND CONTROLLER
	PROJ		
	REL	7/16"	
.X ±.1	APPROVED		CODE IDENT NO. 13979
.XX ±.03	APPROVED		
.XXX ±.010			SIZE
ANGLES ± 0.5°			101854
MACH			REV
SURF ✓	DO NOT SCALE DRAWING		2 OF 2

3-11-88

DO NOT COPY

WIND SENSOR & FLAME
PARTS USED FOR PROTOTYPE ONLY

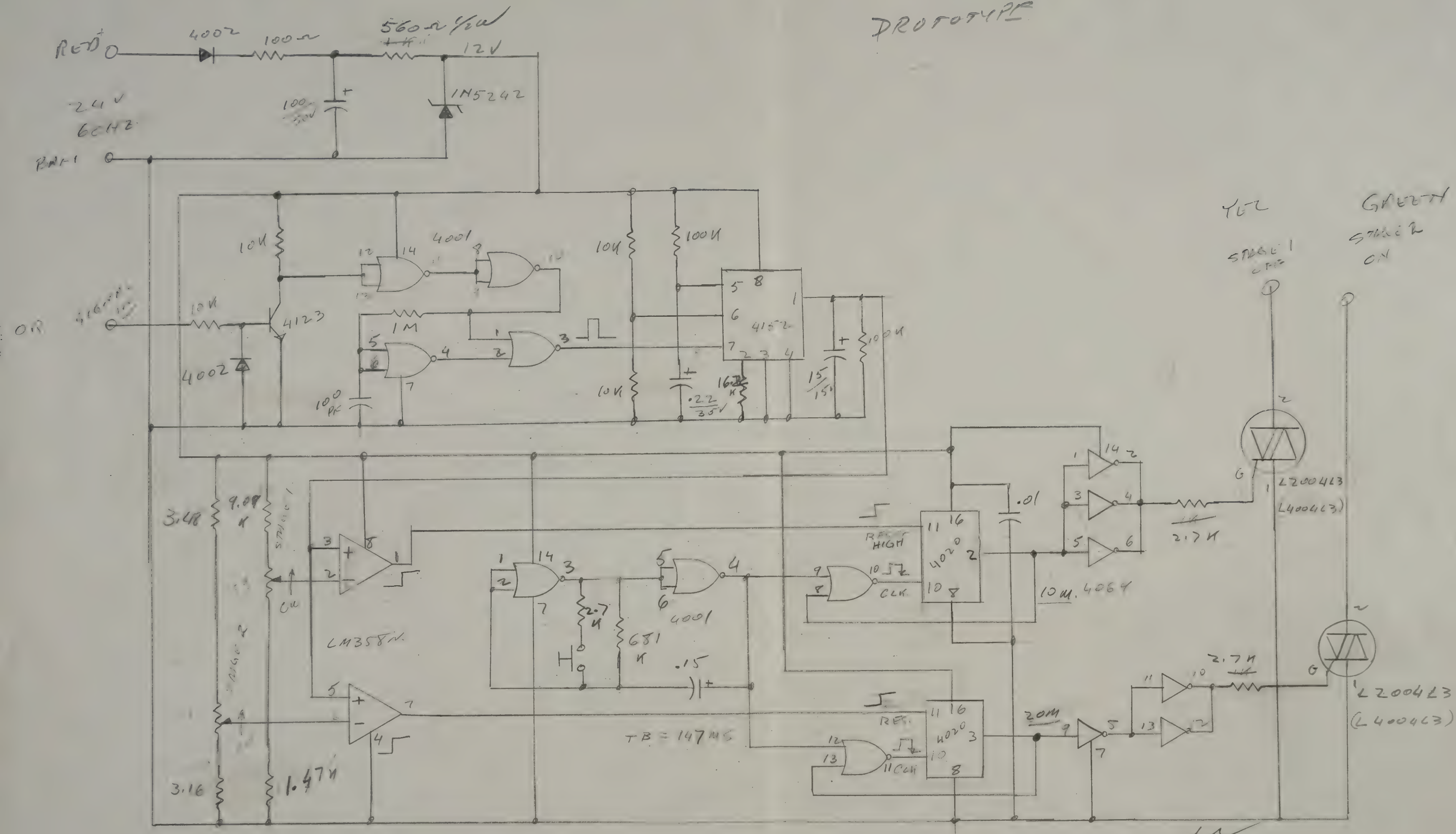
- ~~2 - CD 4020 - COUNTER~~
- ~~2 - CD 4001 - NOT OR~~
- ~~1 - CD 4069 BUFFER/INVERTER~~
- ~~1 - 4152 FREQ/VOLT. CONVERTER~~
- ~~1 - 2N4123 - DIODE~~
- ~~2 - L 2004L3 - TRANS (SEE L40442)~~
- ~~2 - 1N4002 - DIODE~~
- ~~1 - 1N5242 - 12V ZENER (M963) (M754)~~
- ~~1 - SWITCH - CRYSTAL~~
- ~~2 - 5K POTS - MOUSE TYPE (204R-100) RV~~
- ~~1 - 100UF/50V CAP - TAP. ALUM. (ME208-50V100)~~
- ~~1 - 15/16 CAP - DIP - " 540-15M16 - MATRUO~~
- ~~1 - .22/35 CAP - DIP " 540-0.22M35 - MATRUO~~
- ~~1 - .15/50V - ^{DIP} C513 " 540-0.15M35 - MATRUO~~
- ~~1 - 100PF - CH12 CAP 21RD610 - MOUSE~~
- ~~1 - 100 Ω - RES~~
- ~~4 - 10K - RES~~
- ~~2 - 100K - RES~~
- ~~1 - 1M - RES~~
- ~~1 - 16.2K - RES~~
- ~~1 - 681K - RES~~
- ~~1 - .01 - CH12 CAP 21RD410 - MOUSE~~
- ~~3 - 2.7K - RES~~
- ~~1 - 5600 - RES~~
- ~~1 - 3.48K - RES~~
- ~~1 - 3.16K - RES~~
- ~~1 - 9.09K - RES~~
- ~~1 - 1.47K - RES~~

1000 1000
1000 1000

△△



PROTOTYPE



STAGE 1 5-25 MIN
STAGE 2 15-45 MIN

USE FOR
TEST
POINTS
(1. 3 min)
6 min)

$2^{13} = 8192 = 1204.22/60 = 20.07 \text{ min}$
 $2^{12} = 4096 = 602.11/60 = 10.03 \text{ min}$
 TRY FOR 1075

101753
WIND CONTROLLER

3/18/88

$$464 = 165$$

422

383

158

HZ

5 →

2.9 -

10

17 →

8.7

20

27 →

14.5 -

30

35

38

45 →

26.1

916-423-1122

Return Steven

$$-10.5 = 64 \text{ z } .571$$

$$16.9 = 104 \text{ z } .591$$

$$20.3 = 124 \text{ z } .591$$

$$33.4 = 204 \text{ z } .598$$

$$51.4 = 304 \text{ z } .583$$

$$.58 \times 5 =$$

#1 3 HB — 14 HB

#2 9 HB — 23 HB

#1 2.9 HB — 14.3 HB

#2 9 HB — 23 HB
8.2

#3
2.8 HB — 13.5 HB

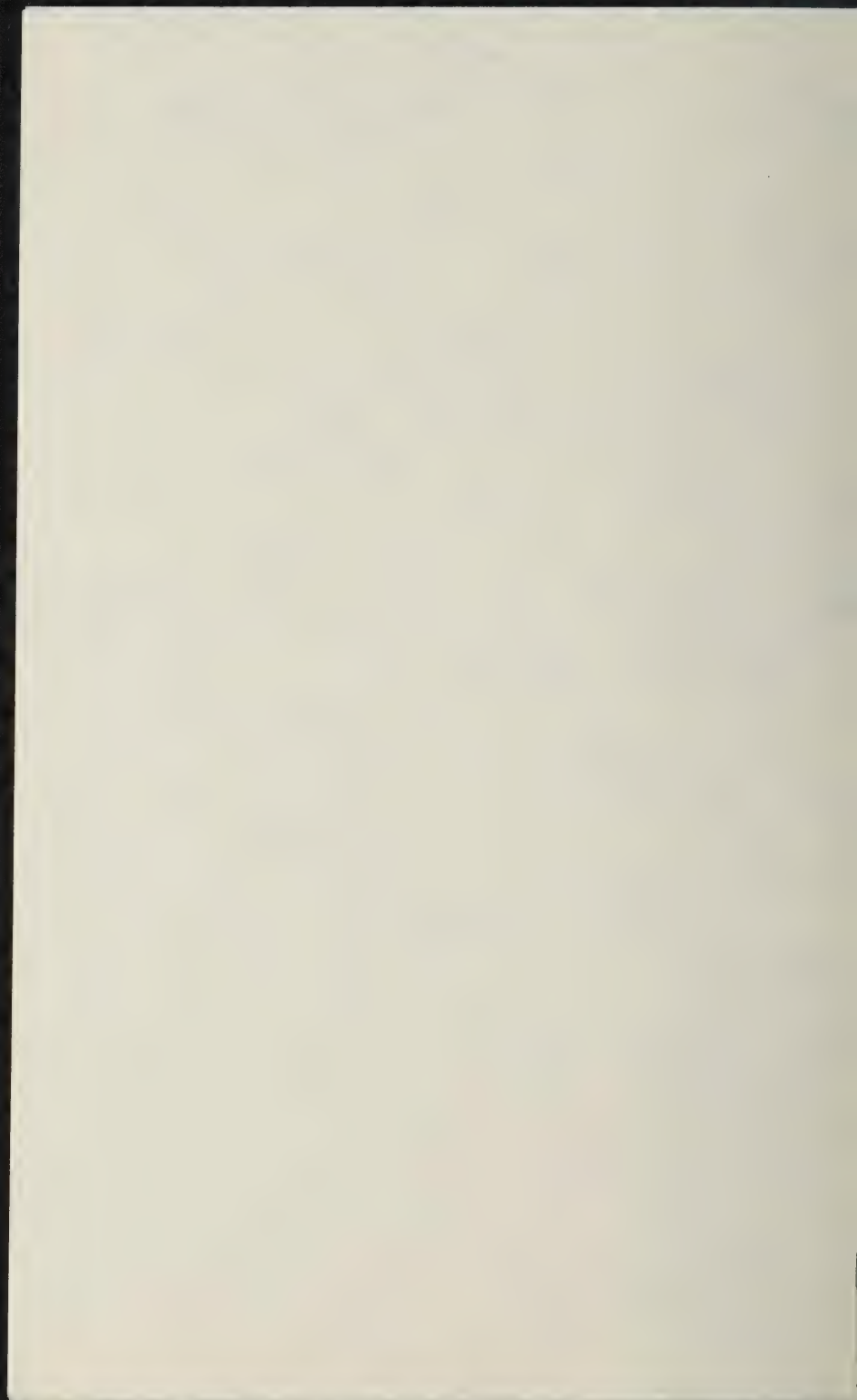
#1 — 3 HB — 14 HB

#2 8 HB — 24 HB
8.3

RANCO

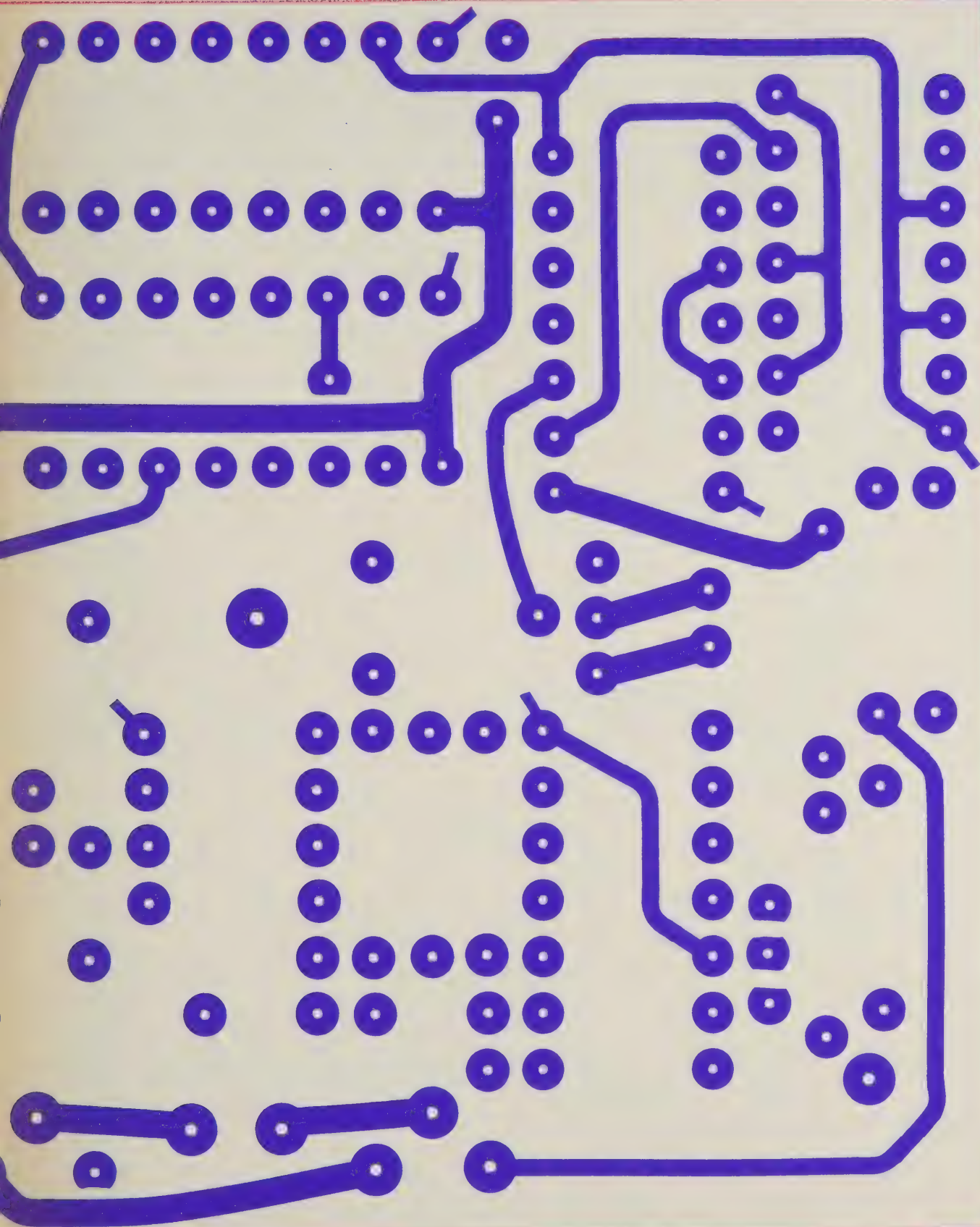
2.8 13.3

7.2 21.8





2.60 REF

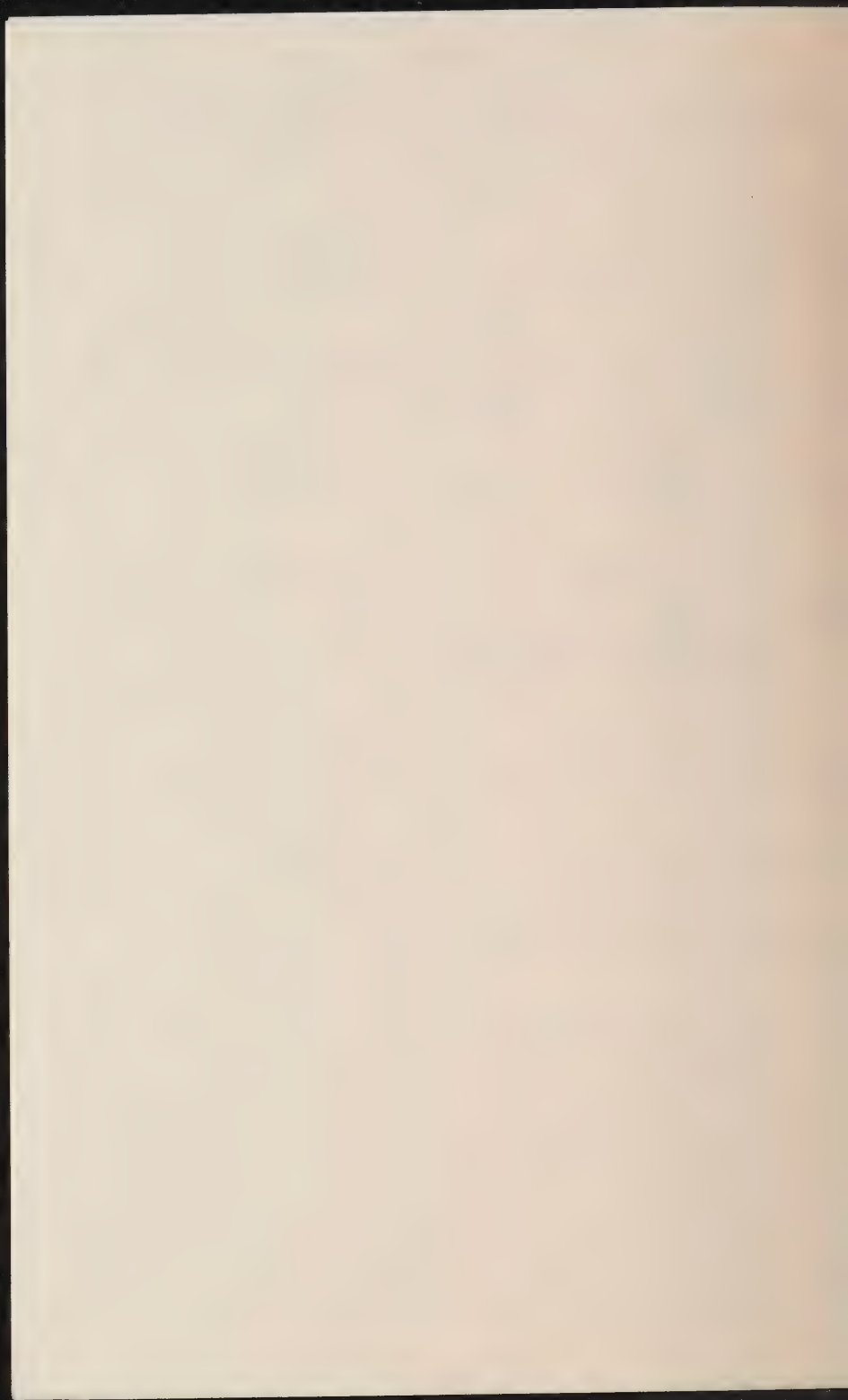


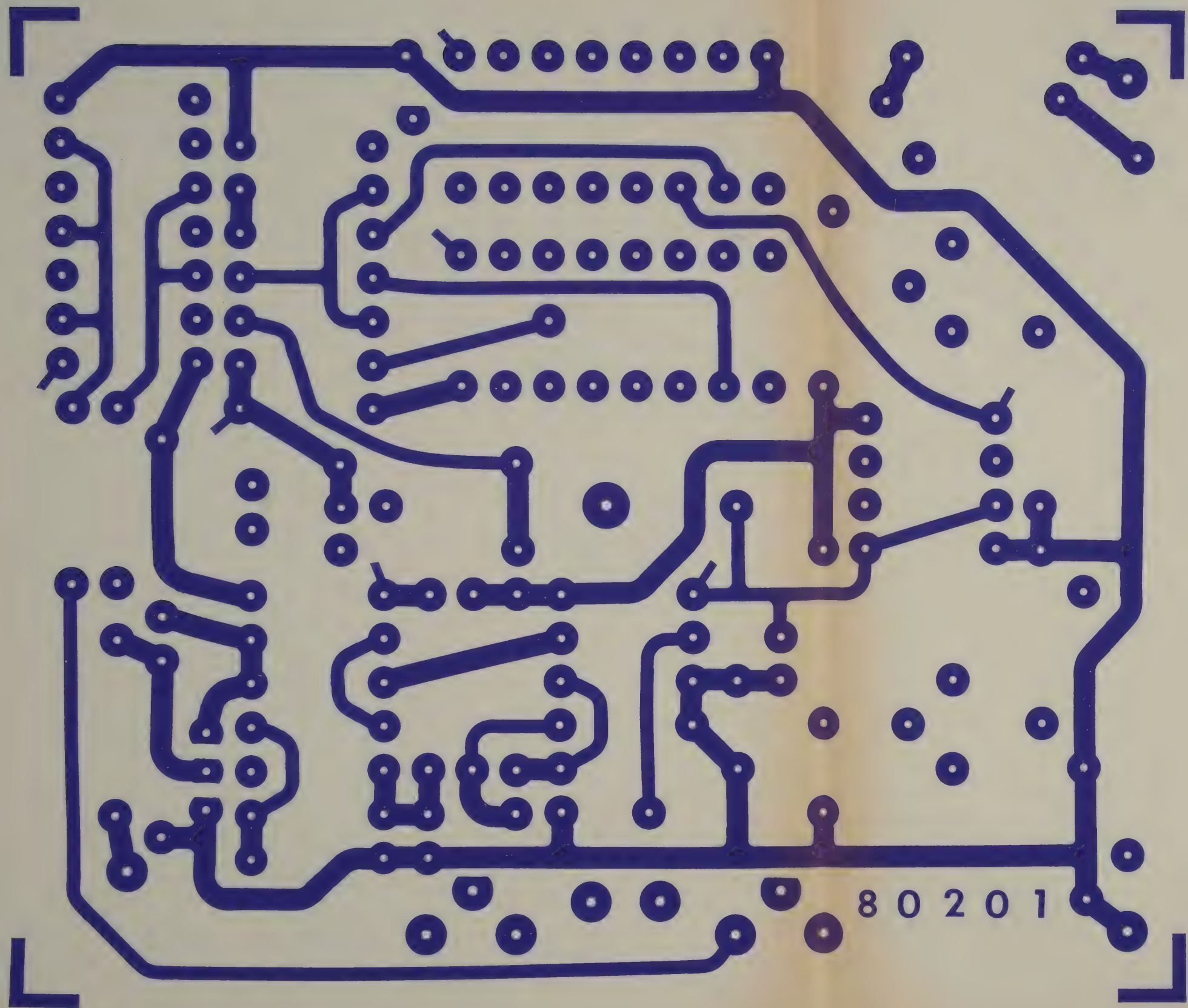
2.20

REF

70201 P.A. BOARD

5/1/85





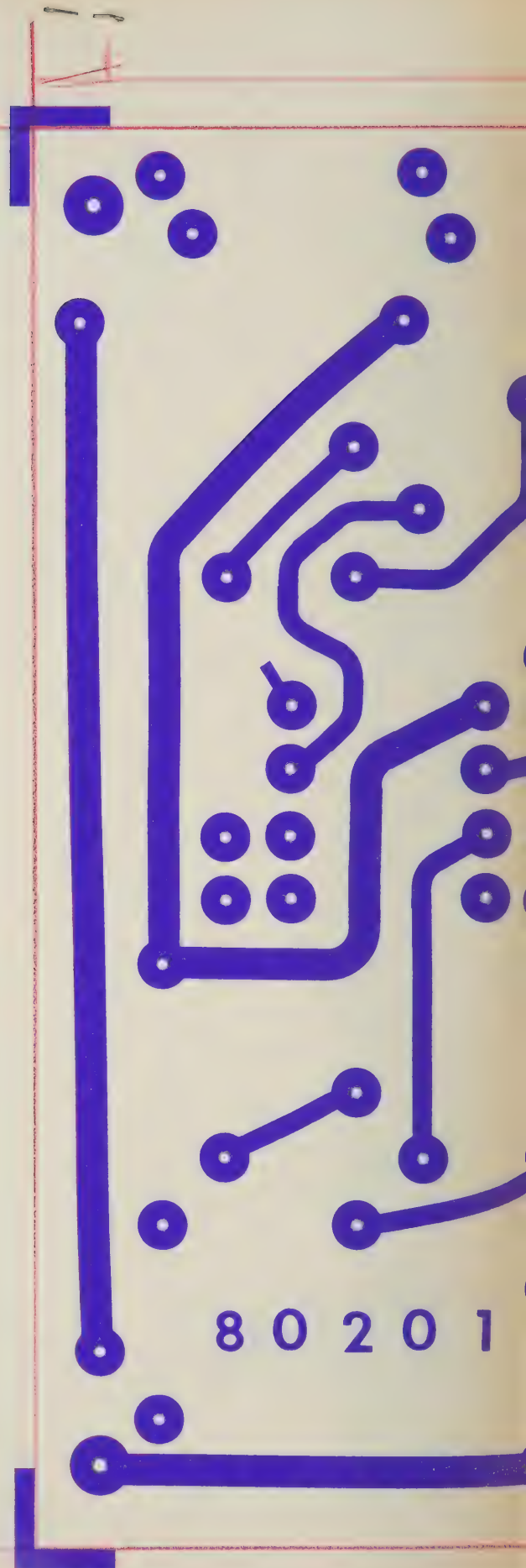
5. HOLE DIMENSION AFTER PATING

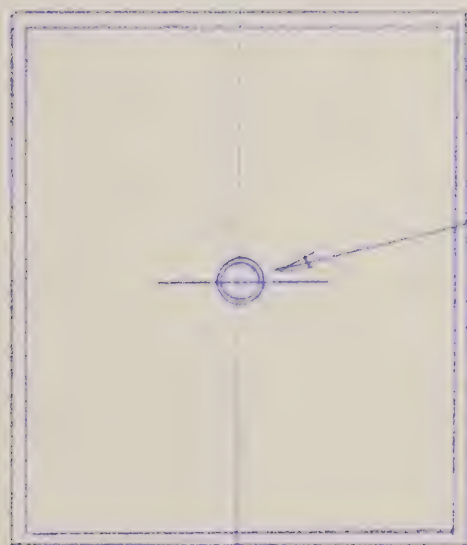
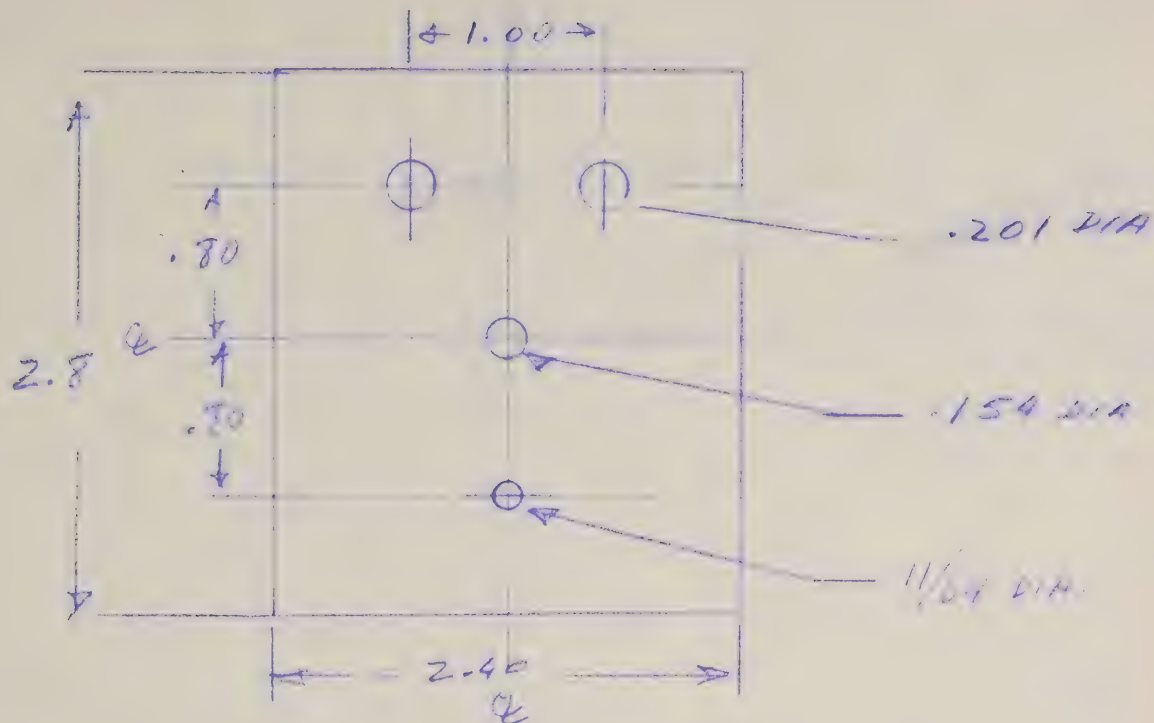
4. DRILL ALL HOLES
.035" (65)

3. SOLDER PLATE AND FUSE
ALL CIRCUITS

2. MATERIAL: .032" GLASS EPOXY
2 OZ. COPPER

1. TOP DRAW 101853





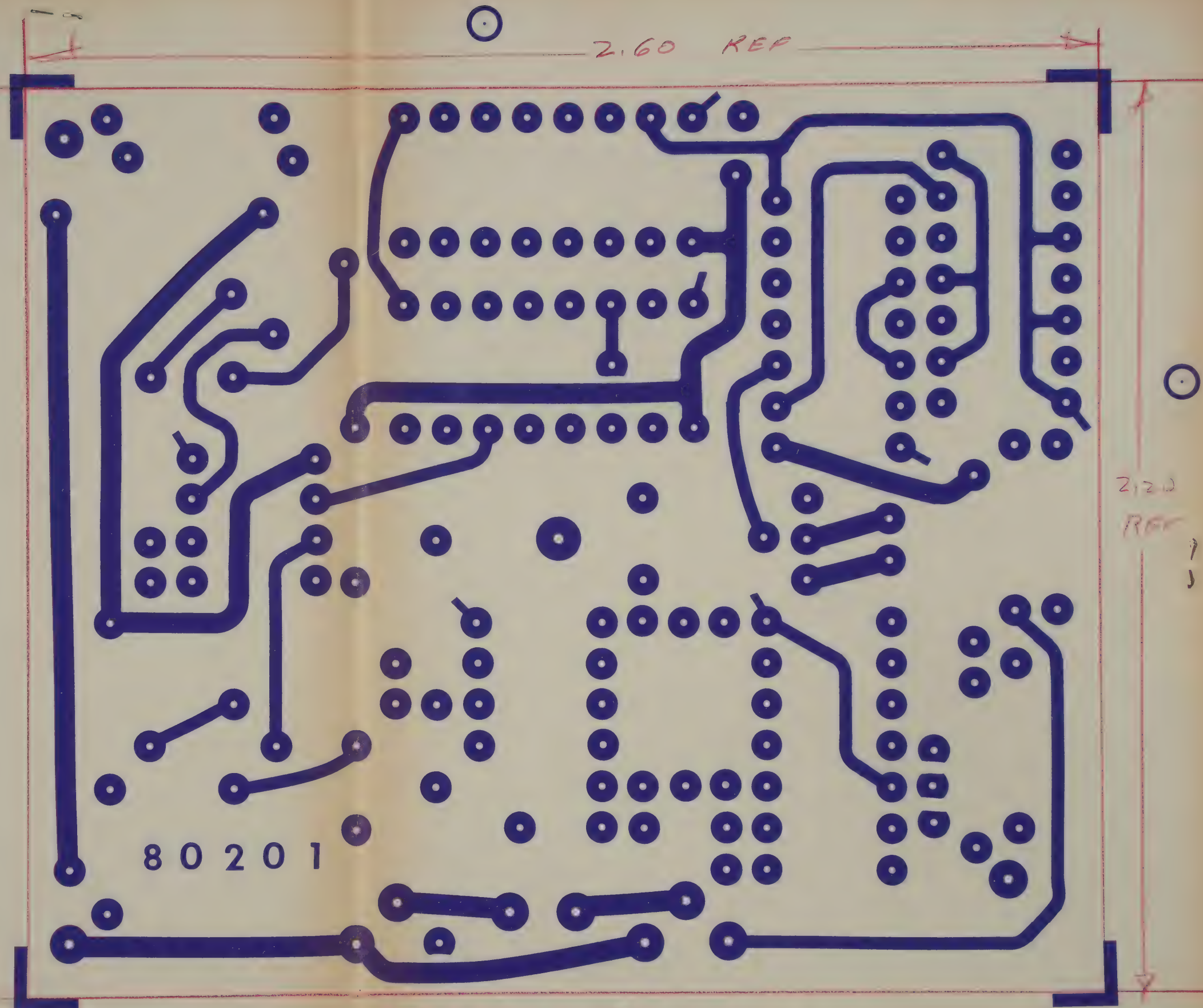
INSIDE VIEW

MODIFICATION OF CASE
POS-240427052

TOP DWG: 101853

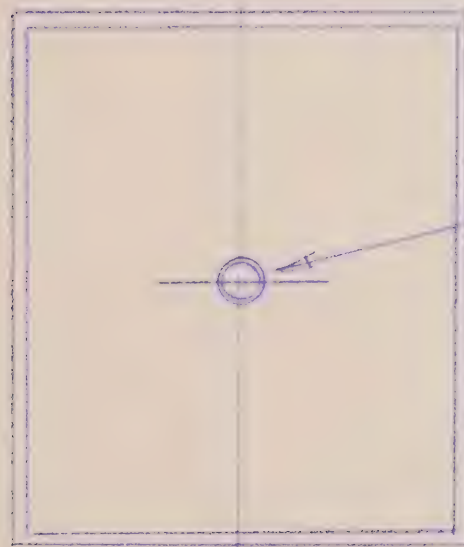
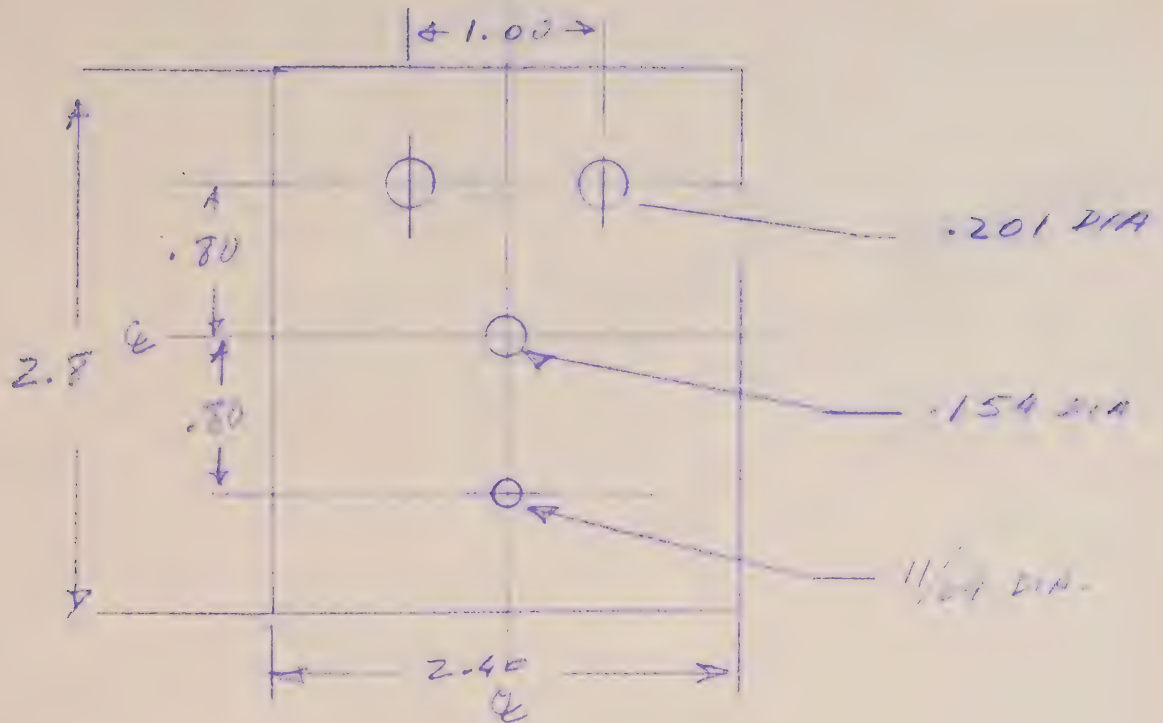
5/12/88

5. HOLE DIMENSION AFTER PLATING
- DRILL ALL HOLES
 $.035''$ (65)
3. SOLDER PLATE AND FUSE
 ALL ONE MATRY
2. MATERIAL $.032$ GLASS EPOXY
 2 OZ. COPPER
1. TOP DRAW 101753



70201 P.C. BOARD

5/11/85

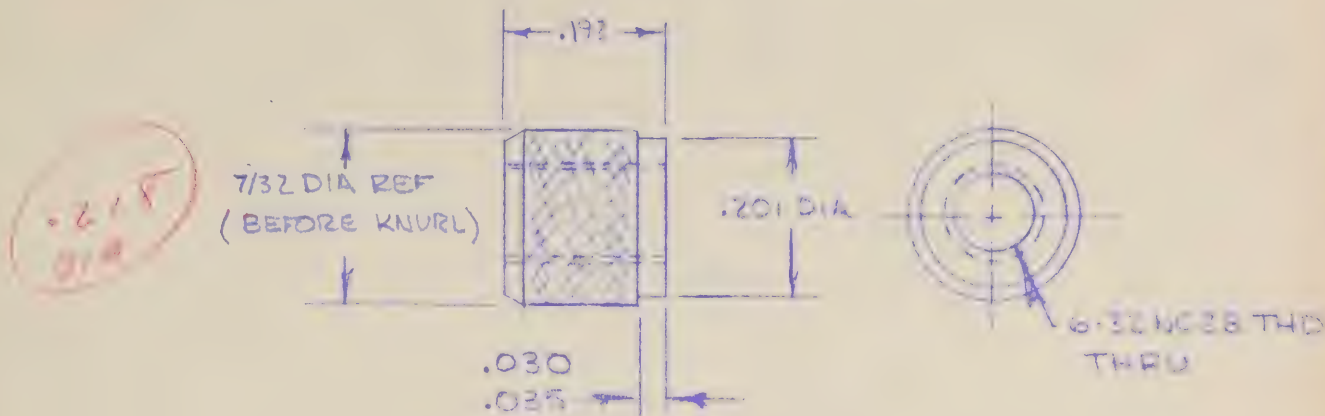


INCHES

MODIFICATION OF PACE
POS-2400-8352

TSP DWG: 101853

5/12/88



2 MATERIAL: BRASS PER QQ-B-626

1 TDU DWG: 101118

NOTES:

QTY	PART NO	DESCRIPTION
-----	---------	-------------

DIMENSIONS ARE
IN INCHES AND
AFTER PLATING

TOLERANCES
(unless otherwise
specified)

X - .1

XX - .03

XXX - .010

ANGLES - 0.5°

MACH
SURF



DR *Cambridge*

1-22-73

CHK *J. H. H. H.*

1-22-73

DSGN

PROJ

REL *J. H. H. H.*

1-22-73

APPROVED

R. B. H. H.

APPROVED

DO NOT SCALE DRAWING



Parko

ELECTRONICS COMPANY, INC., SANTA ANA, CALIF.

INSERT - 6-32 THREAD

CODE IDENT NO.

13979

SIZE

A

90014

REV

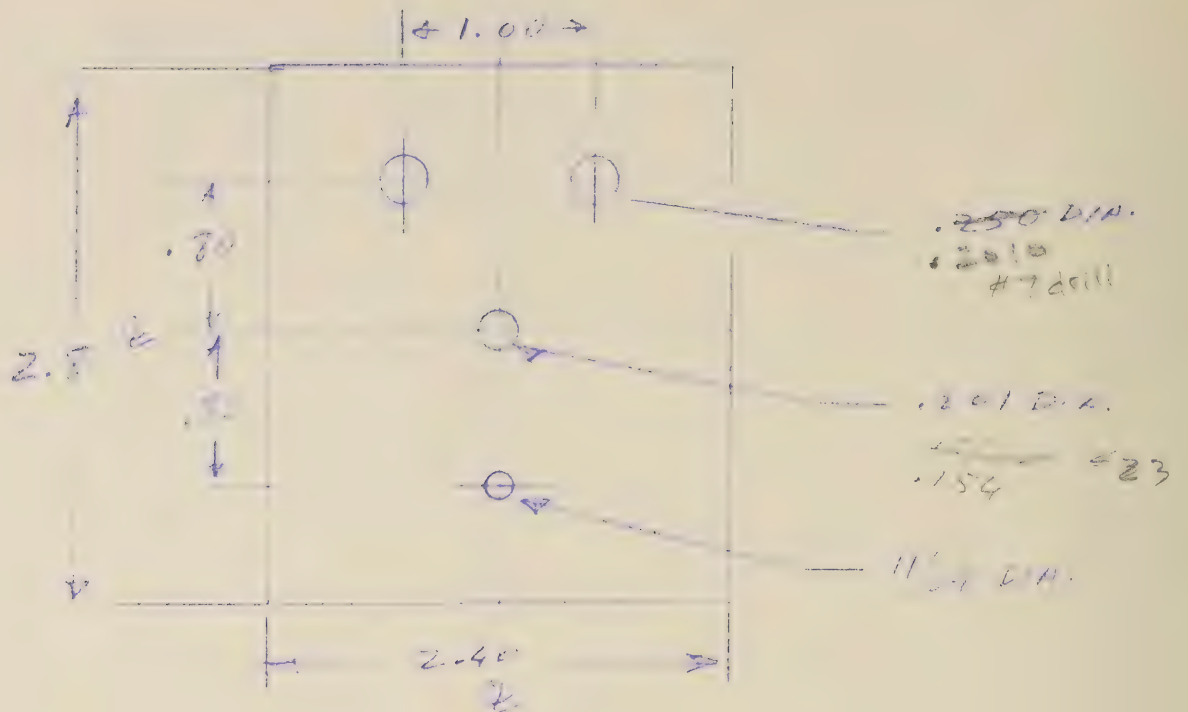
A

SCALE 4:1

SHEET 1 OF 1

30014 A INSERT - 6-32 THD (PIN 2110) A 2-4-77





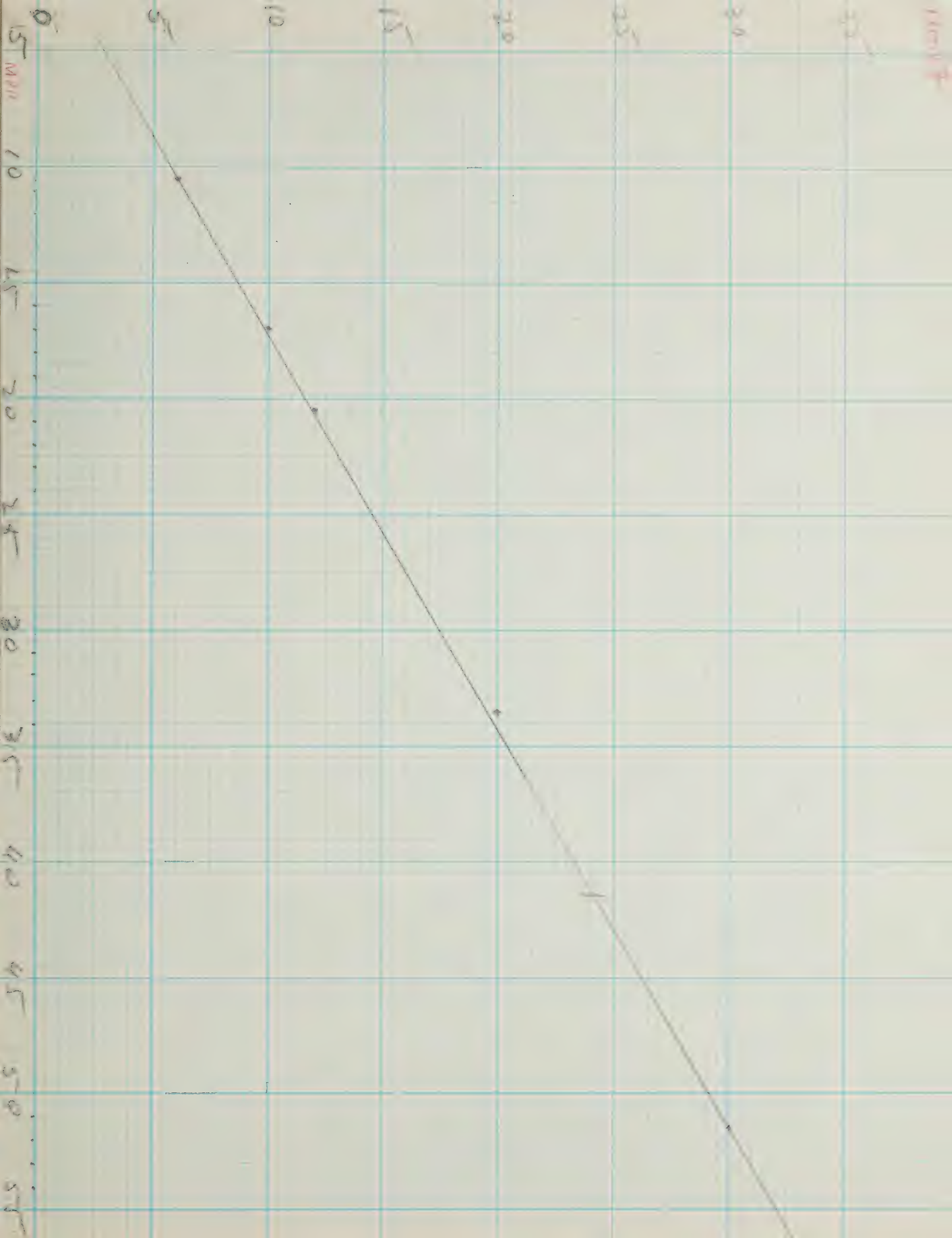
11.5 DIA. HOLE
WITH 6mm
OF DISTANCE

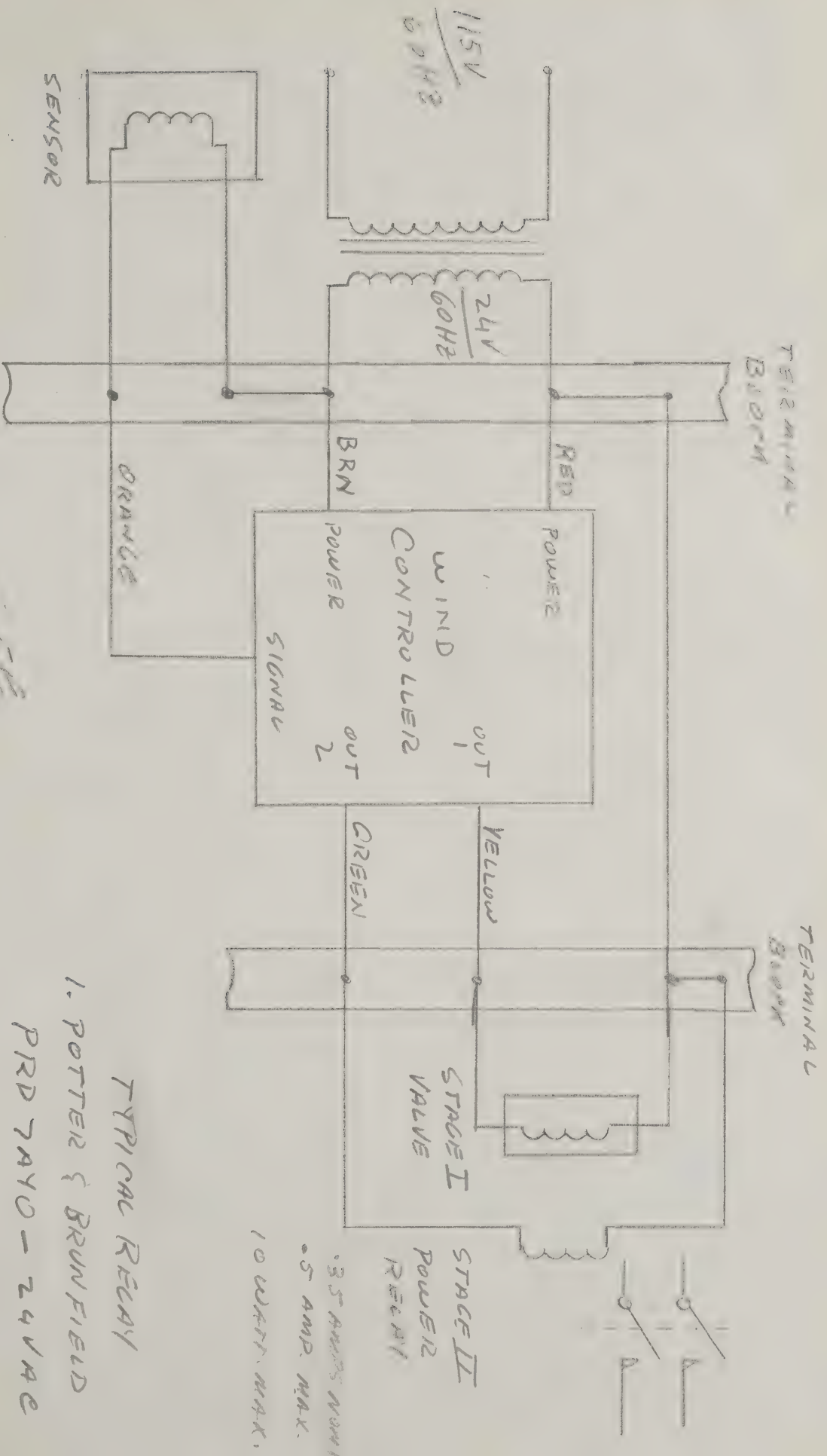
1.00 DIA. HOLE

11.5 DIA. HOLE
POS. 2400.80 ± 0.1

20 DIA. 1.4195 ±

1/16 DIA.





TYPICAL RELAY

1. POTTER & BRUNFIELD
PRD 7410-24VAC

2. MACNEBERT
W 199AX-8

NORMALLY OFF

STAGE I - 5-25 MPH
10-MIN T.D.

STAGE II - 15-45 MPH
20 MIN T.D.

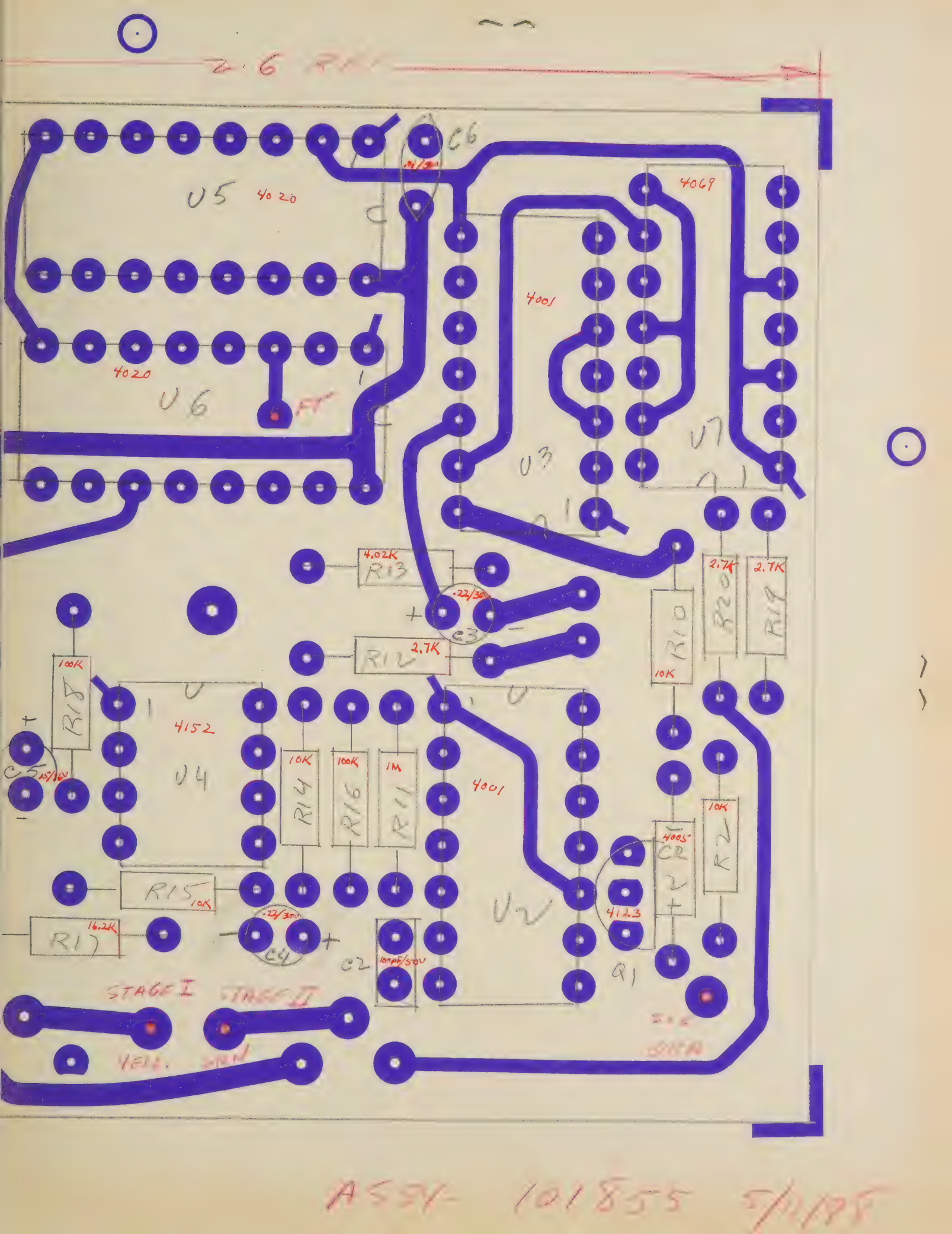
NORMALLY ON

RESET TIME - 5 SECONDS.

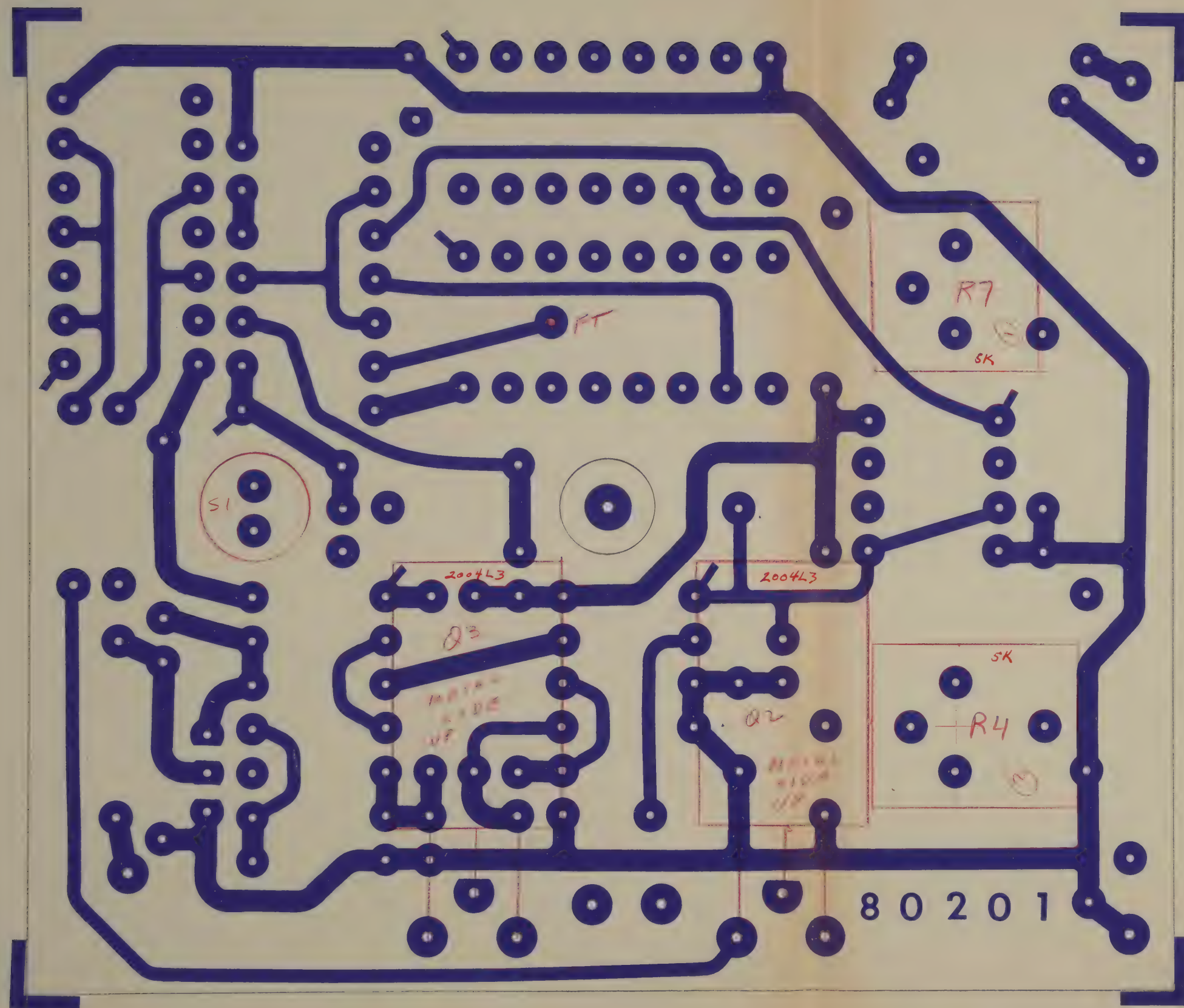
PARVO P/M
101853

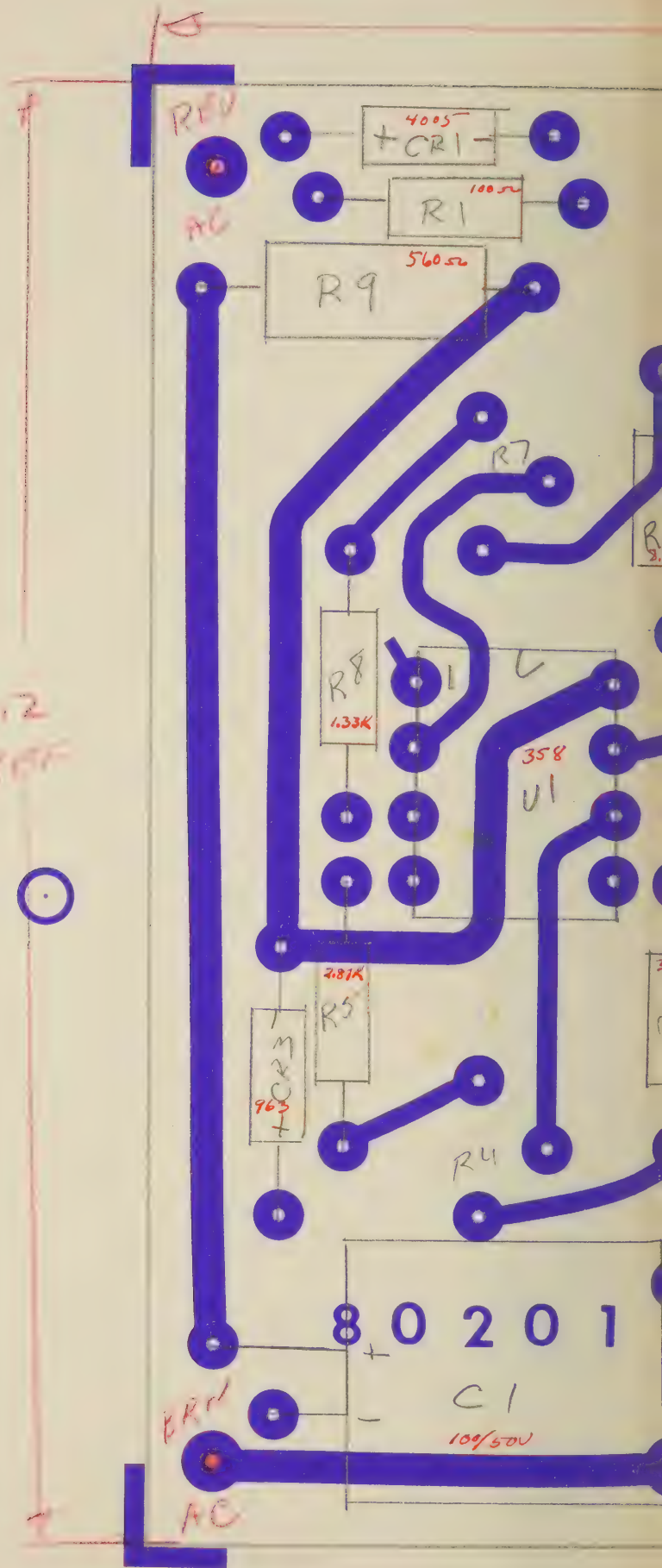
3/18/88

Hand-drawn PCB layout for a two-stage amplifier. The layout features a grid of 20x10 holes. Components are labeled with handwritten text: U1 (4069), U2 (4001), U3 (4001), U4 (4152), U5 (4020), U6 (4020), U7 (4069), R1 (1M), R2 (10K), R3 (4.02K), R4 (10K), R5 (10K), R6 (100K), R7 (16.2K), R8 (100K), R9 (2.7K), R10 (10K), R11 (1M), R12 (2.7K), R13 (4.02K), R14 (10K), R15 (10K), R16 (100K), R17 (16.2K), R18 (100K), R19 (2.7K), R20 (2.7K), C1 (4123), C2 (4005), C3 (22/30V), C4 (22/30V), C5 (45/10V), C6 (4123). The layout is divided into two sections labeled 'STAGE I' and 'STAGE II'. The bottom of the layout has the text 'ASSY- 101855 5/1/85'.



Hand-drawn PCB layout for a two-stage amplifier. The board is populated with 40-pin DIP components U1, U2, U3, U4, U5, U6, and U7. Various resistors (R1-R22) and capacitors (C1-C6) are placed around the ICs. Thick blue lines represent the copper traces connecting the components. Labels like 'STAGE I', 'STAGE II', and '4020' are visible. The board is mounted on a perforated metal plate.





NOTE

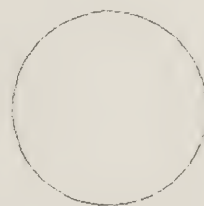
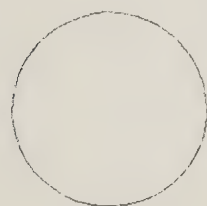
PLEASE INSTALL C3, C4
AND C5 DOWN ON
BOARD AS CLOSE AS
POSSIBLE

PARTS LIST: PC101853
SCHEMATIC: 101854
TOP DRAW: 101853

WIND CONTROL

STAGE 1

STAGE 2



SENSORS 1 2 3 4 5 6 7 8 9 10 11

115 VAC
BL WH



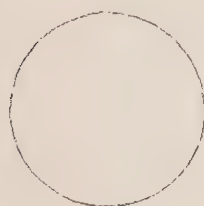
Hand-drawn circuit board layout for a 4020 1-bit counter. The board is populated with various components including resistors (R1-R20), capacitors (C1-C6), and integrated circuits (U1-U7). The layout shows a complex network of traces connecting these components. Key components include a 4020 counter (U5), a 4001 inverter (U7), and a 4009 monostable multivibrator (U6). The board is labeled with component values and pin numbers. The layout is a top-down view of the board, showing the placement of components and the routing of the traces.

NAME: R. 101853
 SERIAL: 101854
 TOP DWG: 101853

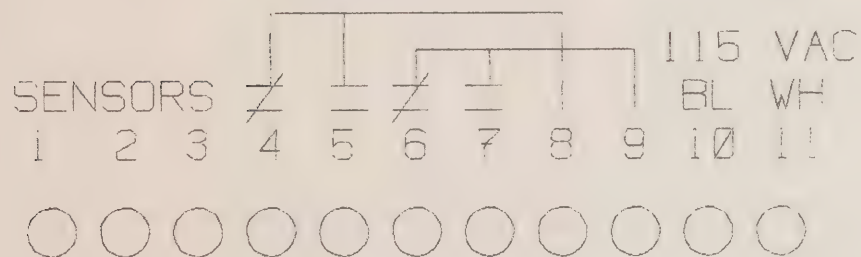
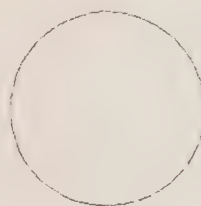
ASSY- 101855 5/11/88

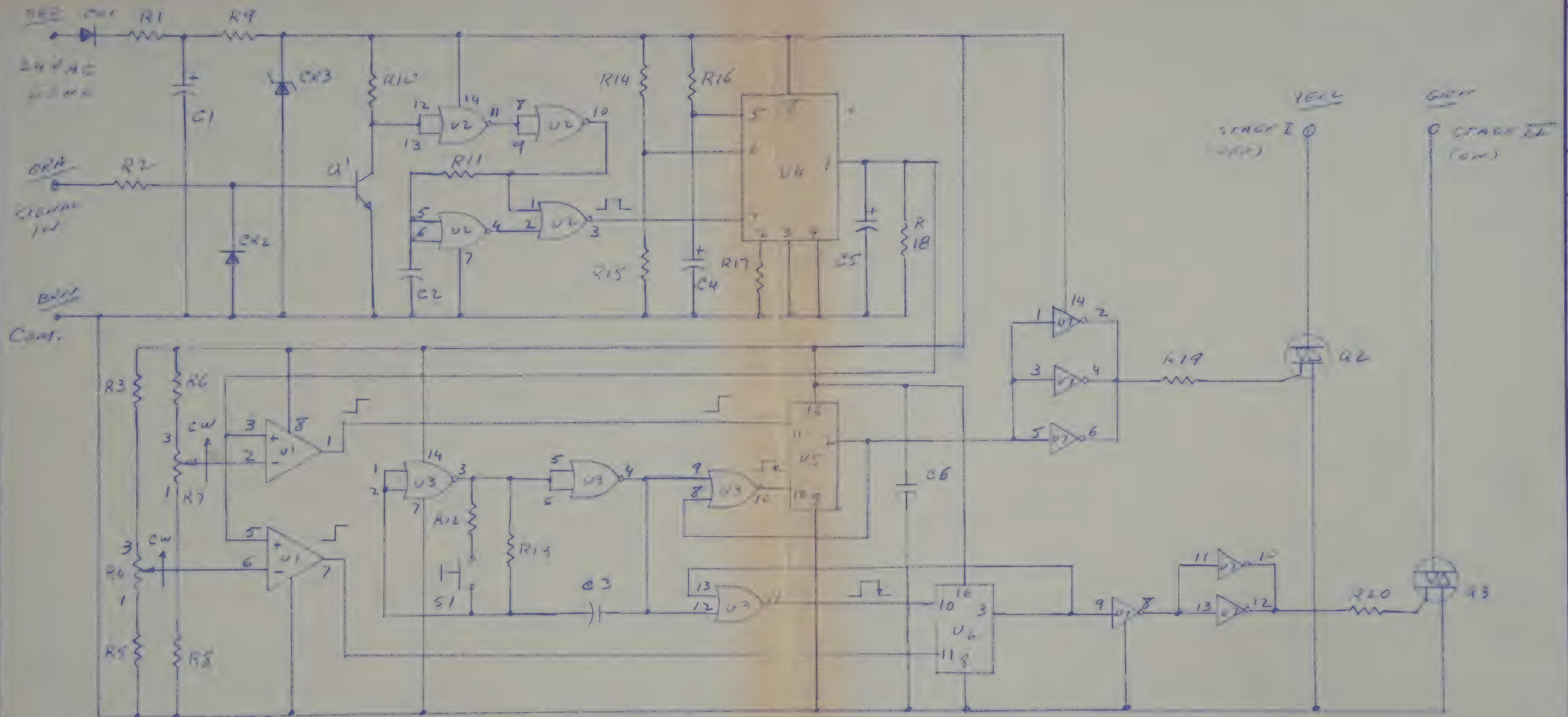
WIND CONTROL

STAGE 1



STAGE 2





3. ASSEMBLY 101855
 2. PARTS LIST: PL-101853
 1. TOP DWG 101853

NOTES

DIMENSIONS ARE
IN INCHES AND
AFTER PLATING

TOLERANCES
(unless otherwise
specified)

X $\pm .1$
 XX $\pm .03$
 XXX $\pm .010$
 ANGLES $\pm 0.5^\circ$

MACH
SURF



DR *Carroll* 5/10/83
 CHK
 DSGN
 PROJ
 REL *Q. Lucas* 5/14/83

APPROVED

APPROVED

DO NOT SCALE DRAWING

Parko

ELECTRONICS COMPANY INC., SANTA ANA, CALIF.

SCHEMATIC WIND CONTROLLER

CODE IDENT NO.

13979

SIZE

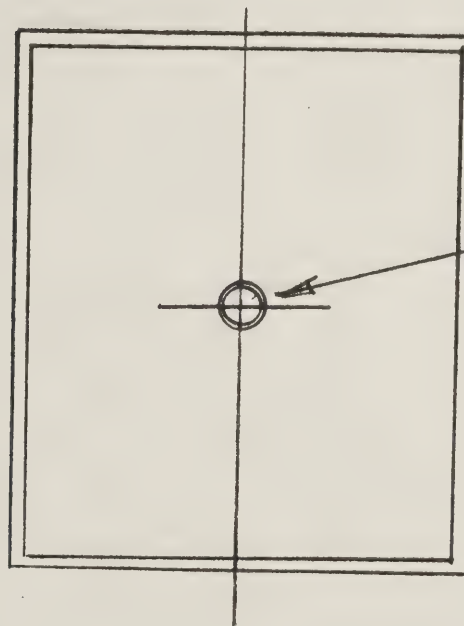
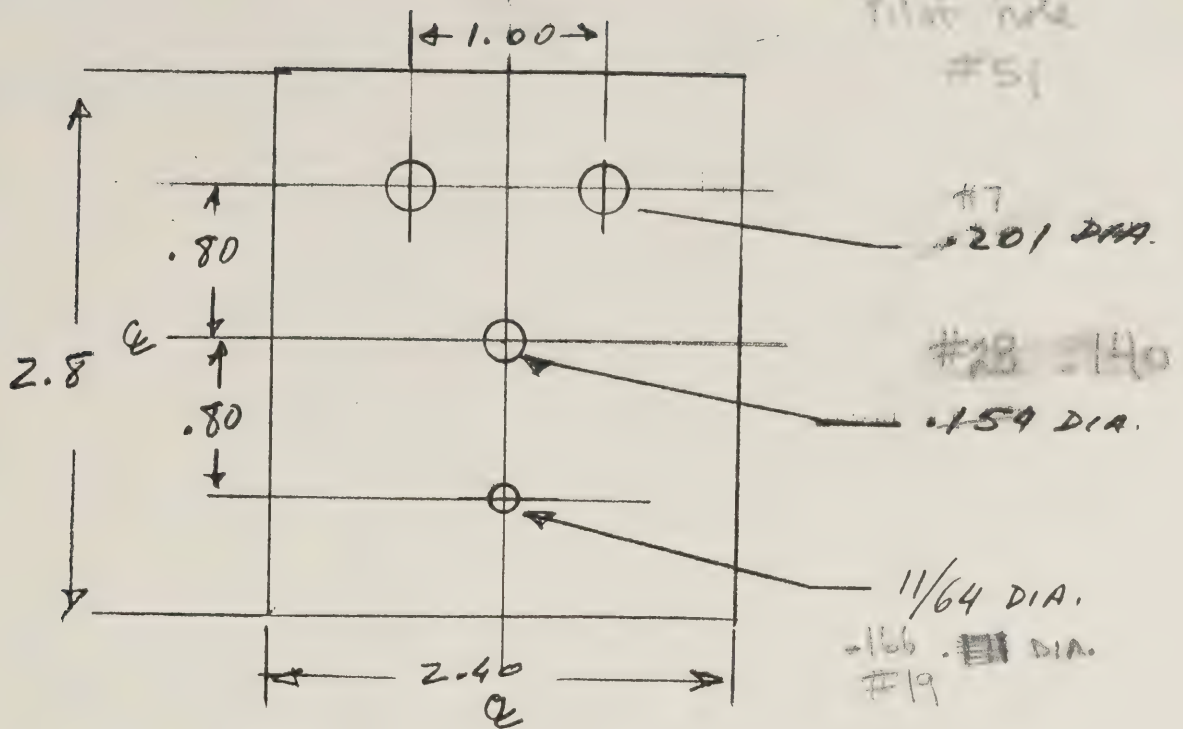
B

101854

REV

SCALE *AS SHOWN*

SHEET 1 OF 2

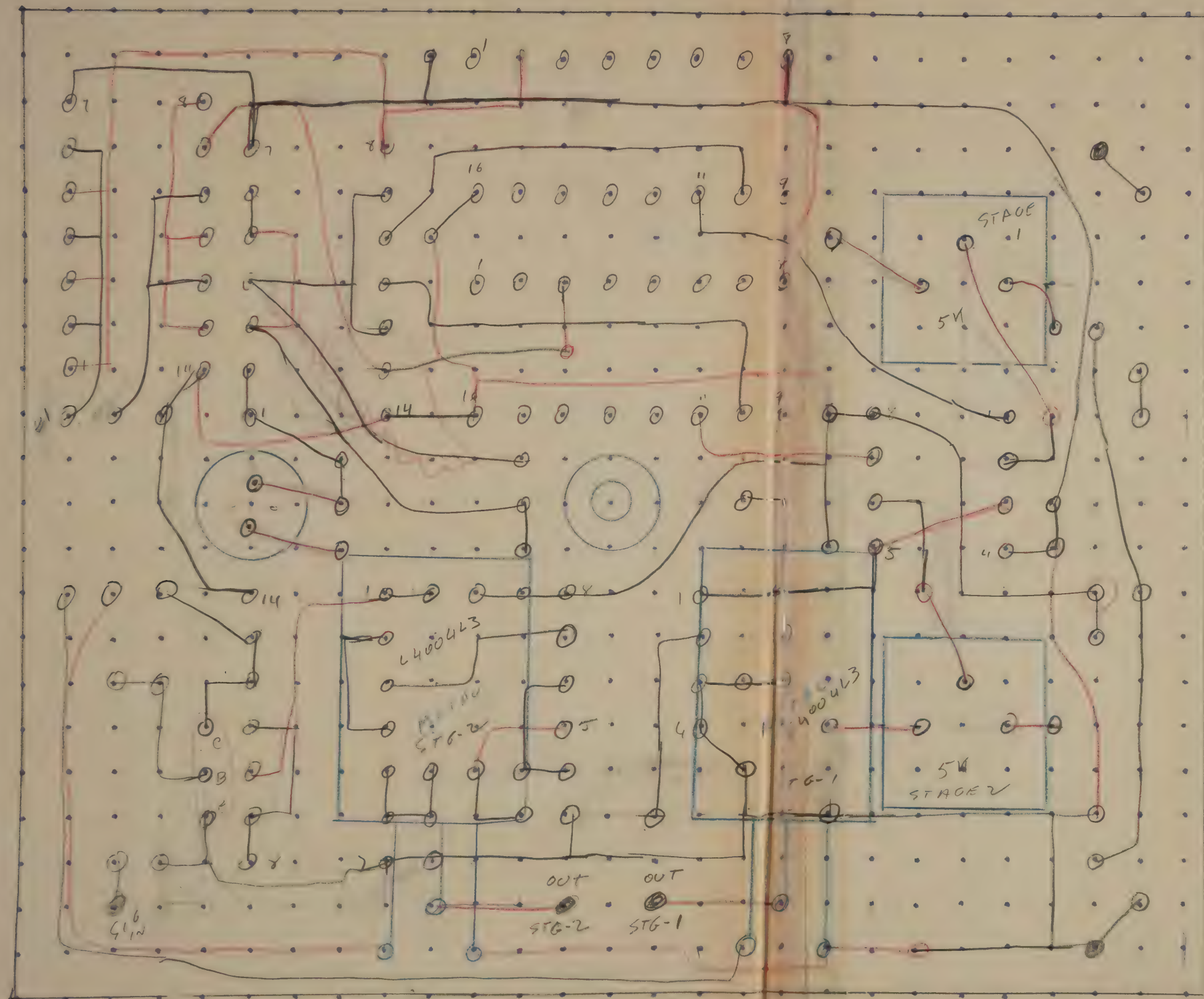


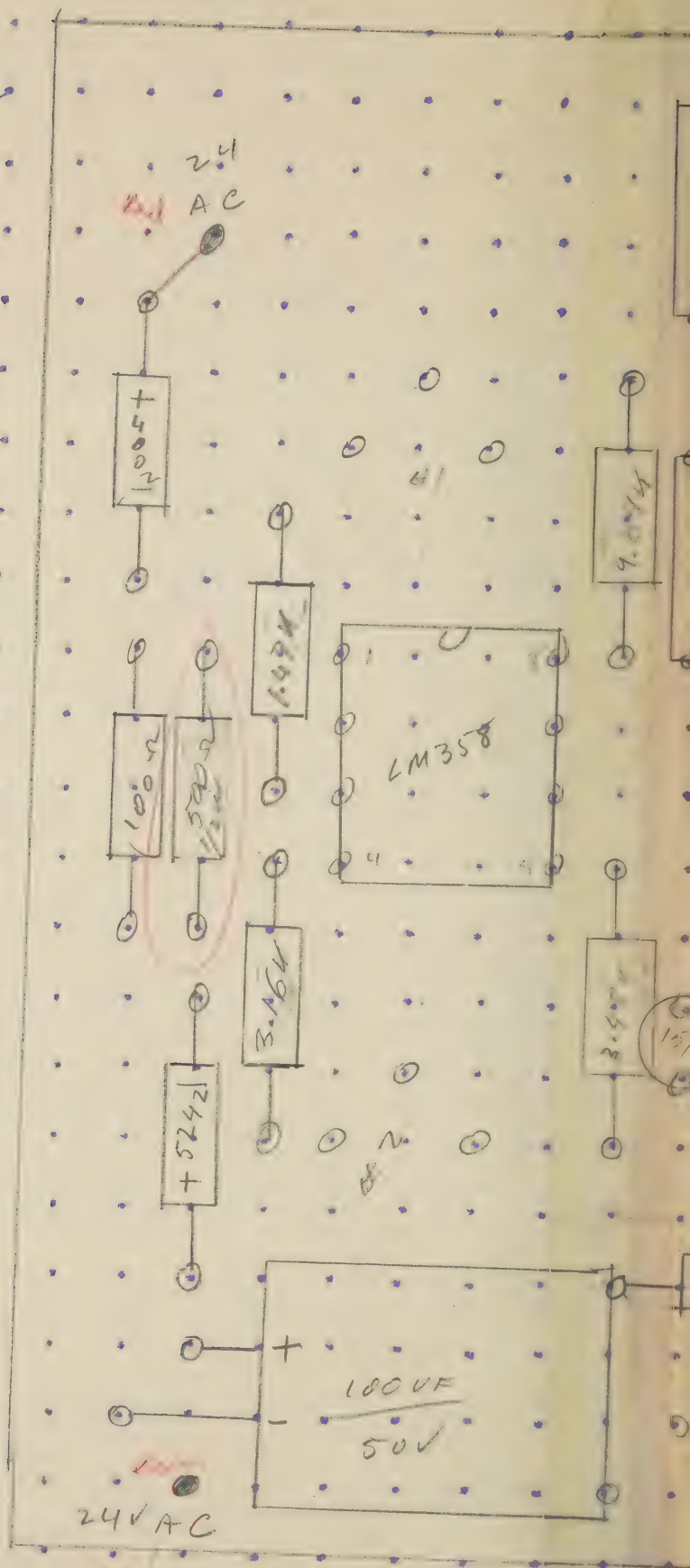
INSIDE VIEW

MODIFICATION OF CASE
POS-2400280052

TOP DWG.: 101853

5/12/88





2-12-90

WHEN POWER IS APPLIED AND
O HZ INPUT - OUTPUT HZ
SHOULD BE ON AND H1 OFF
IF NOT PRESS RESET
WITH H2 ON AND H1 OFF
SLOWLY INCREASE FREQUENCY
H1 COMES ON AROUND 2 TO
5 HZ.
H2 GOES OFF AROUND 7 TO 12 HZ.

REDUCE INPUT TO 0 HZ. AND
PRESS RESET.
H1 GOES OFF IN 5 TO 10 SEC.
H2 COMES ON IN 10-13 SEC.

TURN POTS CW AND RESET.

H1 H2 ABOUT 9-12
H2 H2 ABOUT 21-23

TIME SAME AS BEFORE

CHECK
TIME BASE

2-12-90

WHEN POWER IS APPLIED AND
O H2 INPUT. OUTPUT H2
SHOULD BE "OFF" AND H1 "ON"
IF NOT PRESS RESET.

WITH H2 "ON" AND H1 "OFF"
SOUND INCREASE FREQUENCY

H1 COMES OFF AROUND 2 TO
5 HZ.

H2 GOES OFF AROUND 9 TO 11 HZ.

REDUCE INPUT TO 0 HZ. AND
PRESS BUTTON,

H1 GOES OFF IN 5 TO 10 SECS.

H2 COMES ON IN 10-13 SECS.

TURN TESTS CW AND CCW.

#1 H2 ABOUT 9-12

#2 H2 ABOUT 21-23

TIME SAME AS BEFORE

CHECK

TIME BASE

WHEN WIND COMES
UP PAST THE TRIP
POINT IT RESETS
THE COUNTER AND TURNS
STAGE I "ON" AND STAGE
II OFF.

AFTER THE WIND COMES
DOWN BELOW THE TRIP
POINT, THE TIMER
STARTS - 10 OR 20 MIN -
BEFORE TURNING I OFF
AND II ON.

WITH POTS ~~CCW~~
TURN POTS CW - SIGNAL
INPUT 0 HZ. -

#1 #2

PRESS BUTTON

#1 OFF AFTER ≈ 7 SEC.

#2 ON " ≈ 14 "

SLOWLY BRING FREQ UP
UNTIL #1 IS ON ≈ 3 HZ.
AND #2 IS OFF ≈ 9 HZ.

PRESS BUTTON & RES. AFTER
7 SEC.

#2 AFTER 14 SEC.

TURN POTS CW AND REPEAT

THIS IS N.C.

2-12-90

Date 04/05/14 Parko P/N 101853- Qty. S/O

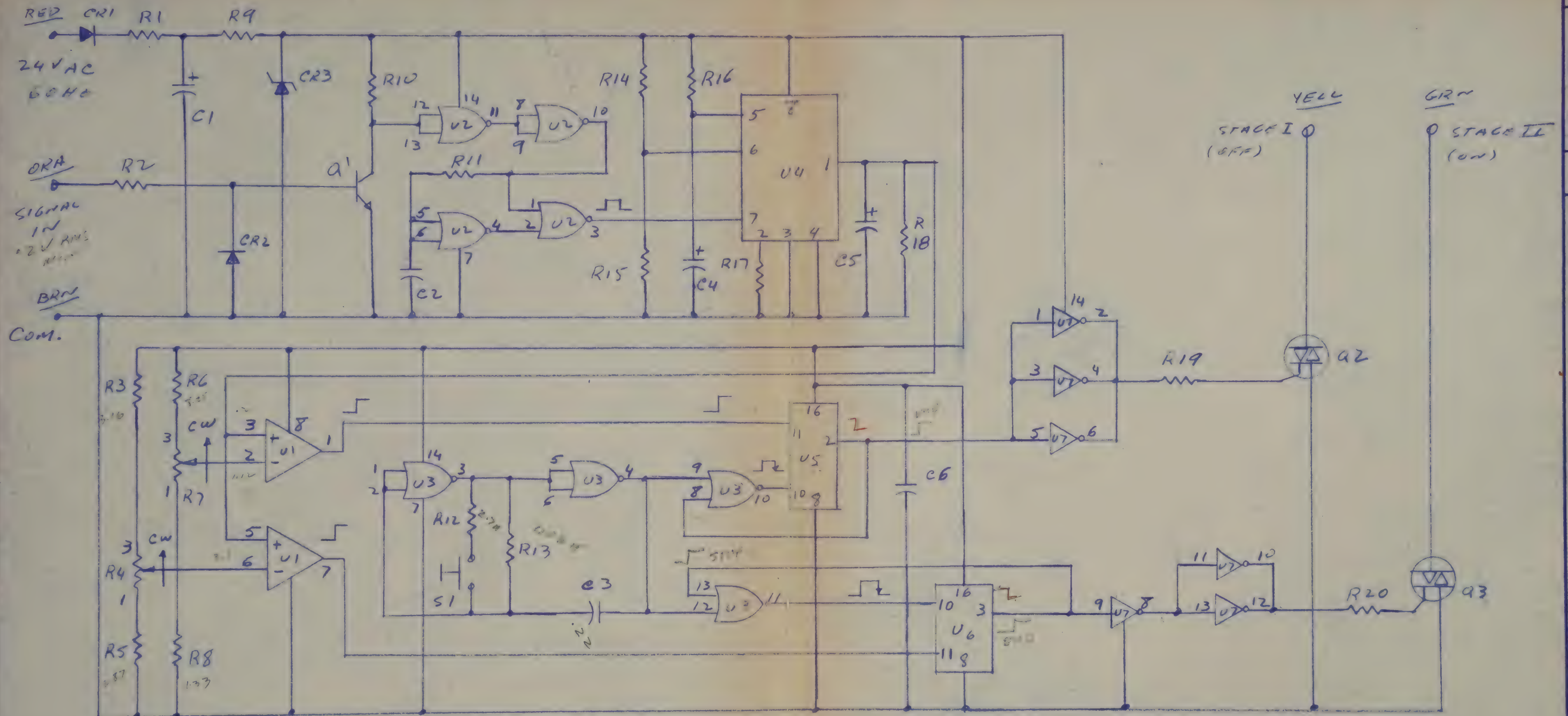
Ref. Des.	P/N	Description	Unit Qty	Total Qty	Insp	Manufacturer	Parko PO	Notes
Q1	2N4122	TRANSISTOR	1					
Q2, Q3	4200063	TRIAC	2			TECCOR (4400063 P/N)		
CR1 - CR4	1N4002	DIODE	2					
CR3	1N5242	12V ZENER	1			Linear (1N5242) etc		
C1	M5205-50V100	CAP. 100uF/50V	1			RUBYCON (M5205)		
C2	21RD510	CAP. 100uF - 50V	1			MOUSE		
C3	540-0.22M35	CAP. .22uF/35V	1			MATSUO - MOUSE		
C4	540-0.22M35	CAP. .22uF/35V	1			MATSUO - MOUSE		
C5	540-15M16	CAP 15uF/16V	1			MATSUO - MOUSE		
C6	21EE010	CAP. .01uF/50V	1			MOUSE		
R1	RC07G101VS	RES. 100Ω	1					
R2	RC07G103VS	RES. 10Ω	1					
R3	RN55D3161F	RES. 3.16K	1					
R4	32ME305	POT. 5K	1			MOUSE		
R5	RN55D2871F	RES. 2.87K	1					
R6	RN55D8251F	RES. 8.25K	1					
R7	32ME305	POT 5K	1			MOUSE		

PARTS LIST AND TRACEABILITY RECORD

Date May 1988 Parko P/N 101553 Qty. S/O

Ref. Des.	P/N	Description	Unit Qty	Total Qty	Insp	Manufacturer	Parko PO	Notes
R15	R45TD1331F	RES 1.23K	1					
R9	RC20	RES 560K 1/2W	1					
R10	RC07C103TS	RES 10K	1					
R11	RC07C105VS	RES 10K	1					
R12	RC07G272TS	RES 2.7K	1					
R13	RC45SD4023F	RES 402K	1			FOR 100MS T.B		
R14	RC07103TS	RES 10K	1					
R15	RC07103VS	RES 10K	1					
R16	RC07104TS	RES 100K	1					
R17	RC45SD1622F	RES 16.2K	1					
R18	RC07104TS	RES 100K	1					
R19	RC07G272TS	RES 2.7K	1					
R20	RC07G272TS	RES 2.7K	1					
S1	39-401R0RB	BUSH BUTTON SWITCH	1			CROYLE		

5/0



3. ASSEMBLY: 101855
 2. PARTS LIST: PL-101853
 1. TOP DWG: 101853

NOTES:

R13, C3 -
 147MS T.B.

CHECK TIME BASE
 ON ALL UNITS

DIMENSIONS ARE
 IN INCHES AND
 AFTER PLATING

TOLERANCES
 (unless otherwise
 specified)

.X $\pm .1$
 .XX $\pm .03$
 .XXX $\pm .010$
 ANGLES $\pm 0.5^\circ$

MACH
 SURF



DR *Corey Hickey* 5/10/88
 CHK
 DSGN
 PROJ
 REL *P. Hickey* 5/10/88

APPROVED

APPROVED

DO NOT SCALE DRAWING

Parko

ELECTRONICS COMPANY INC., SANTA ANA, CALIF.

SCHEMATIC
 WIND CONTROLLER

CODE IDENT NO.

13979

SIZE

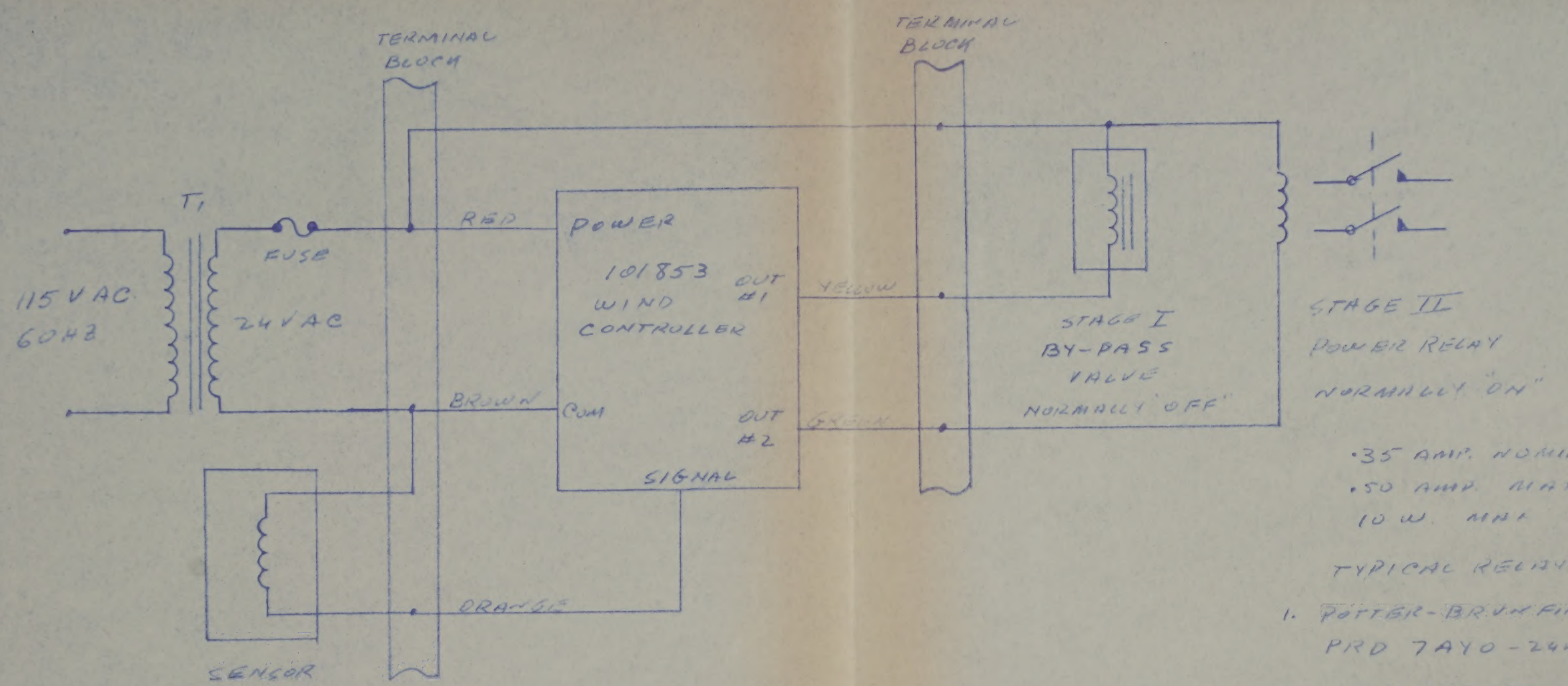
B

101854

REV

SCALE NONE

SHEET 1 OF 2



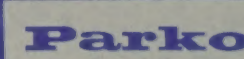
STAGE I: 5-25 MPH.
10 MIN. TIME DELAY
NORMALLY 'OFF'

STAGE II: 15-45 MPH
20 MIN. TIME DELAY
NORMALLY 'ON'

RESET TIME: 15 SEC MAX.

- 35 AMP. NOMINAL
•50 AMP. MAX
10 W. MIN.
- TYPICAL RELAYS
1. POTTIER-BRUNFIELD
PRD 7AYO-24VAC
 2. MAGNECRAFT
W199AX-8

P/N- 101853

DIMENSIONS ARE IN INCHES AND AFTER PLATING TOLERANCES (unless otherwise specified) .X ±.1 .XX ±.03 .XXX ±.010 ANGLES ±0.5° MACH SURF ✓	DR <i>James</i> 5/14/88	 Parko ELECTRONICS COMPANY INC., SANTA ANA, CALIF.		
	CHK			
	DSGN	WIRING DIAGRAM - WIND CONTROLLER		
	PROJ			
	REL <i>Carhu</i> 5/14/88			
APPROVED		CODE IDENT NO.	SIZE	REV
APPROVED		13979	B	101854
DO NOT SCALE DRAWING		SCALE NONE	SHEET 2 OF 2	

P/n
101853



January 23, 1988

Frank:

Here is the anemometer we spoke of earlier. I have not sent it to you sooner because I'm sure you have been going through more than I could imagine. I know there is nothing I can say to help, so I will just tell you that you a BJ have my sincere prayers for speedy and strong recovery.

I was pleased to find out that you felt receptive to the idea of building a control unit to replace the ones we have been getting. They have served us well, but are just getting too expensive. You may remember the details of what we need, but in case you don't let me try to reiterate them.

What we are doing is using the wind signal to trip two relays, each at a different wind velocity. The velocity at which each relay trips needs to be variable by some means such as a dial or set of dip switches. The ranges of wind speed at which the two relays trip should probably overlap to some extent to accommodate fountains of different sizes. These go into control panels we build, so the depth of the unit from front to back should be no more than four inches. The can to house it should probably be a rain tight unit even though when we use it, it will be housed in the panel box, and the one we have been using we have removed the front door so that when the main door of the control panel was opened the front of the wind control was accessible without opening another door. I am enclosing a symbolic scale printout of the one we have been using just to give you an idea of how it was laid out.

Probably we would only be able to afford quantities of five or so to start, but if we can compete with our suppliers on this we may be able to sell many more when we get the word out that we have a quality alternative.

I will call you sometime in the near future to see if this has arrived safely, and to see if I have left out anything you may want to know.

In Friendship,

8011 Stockton Boulevard
Sacramento, CA 95823
(916) 423-1122
(800) 354-1122

Robert Baswell

5

35-40

STAGE I

5-25

10 MIN P.M.

NORM OFF

STAGE II

15-45

20 MIN P.M.

NORM ON